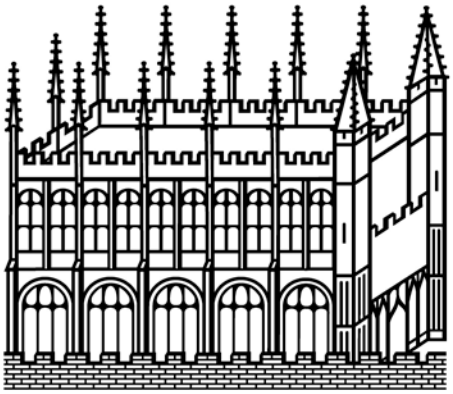

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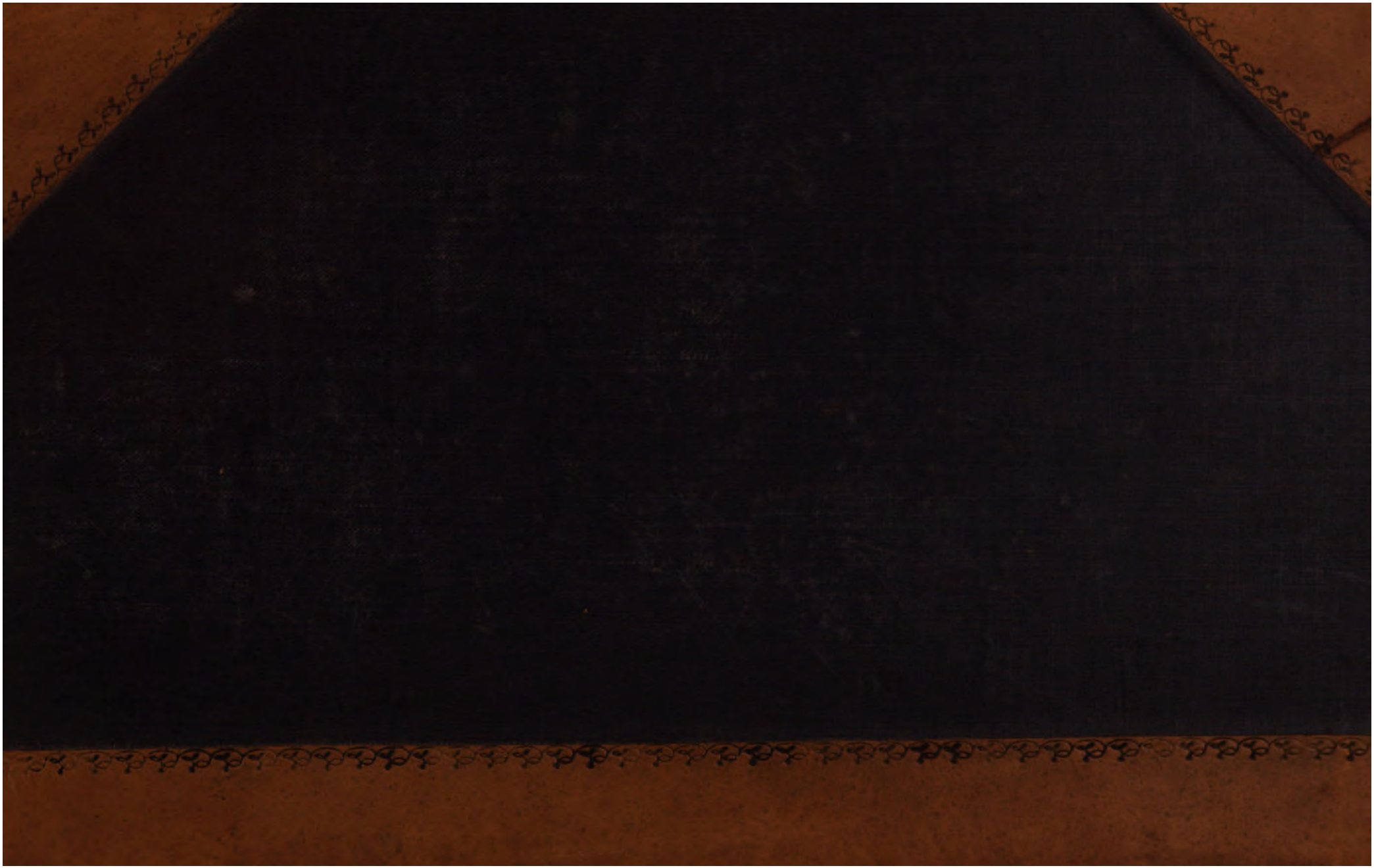


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G A S.

GAS. Goth. and Swed. *gæsa*, to ferment, a term first commonly used by Van Helmont for fluids of an aëriform character.

Gas. The various gaseous bodies have been enumerated, and their properties explained, in that department of chemistry, to which they peculiarly belong; and we now propose to direct the attention of our readers to one of the most important practical applications of gaseous chemistry, in the illumination of buildings, and even large cities, by carbureted hydrogen gas.

The producing from coal an aëriform fluid, which could be distributed at pleasure in every direction, for the purpose of economical illumination, has justly been ranked amongst the greatest benefits which the science and enterprise of this country have conferred on mankind.

That coal evolves a permanently elastic and inflammable aëriform fluid, seems first to have been experimentally ascertained by the Rev. Dr. Clayton, and a brief account of his discovery is published in the Philosophical Transactions for the year 1739. The following is an extract from his paper:—'I got some coal, and distilled it in a retort in an open fire. At first there came over only phlegm, afterwards a black oil, and then likewise a spirit arose, which I could no ways condense; but it forced my lute or broke my glasses. Once when it had forced my lute, coming close thereto, in order to try to repair it, I observed that the spirit which issued from it caught fire at the flame of the candle, and continued burning with violence, as it issued out in a stream, which I blew out and lighted again alternately for several times. I then had a mind to try if I could save any of this spirit, in order to which, I took a turbinated receiver, and putting a candle to the pipe of the receiver, whilst the spirit arose, I observed that it catched flame, and continued burning at the end of the pipe, though you could not discern what fed the flame. I then blew it out, and lighted it again several times; after which I fixed a bladder, squeezed and void of air, to the pipe of the receiver. The oil and phlegm descended into the receiver, but the spirit, still ascending, blew up the bladder. I then filled a good many bladders therewith, and might have filled an inconceivable number more, for the spirit continued to rise for several hours, and filled the bladders almost as fast as a man could have blown them with his mouth; and yet the quantity of coals distilled was inconsiderable.

'I kept this spirit in the bladders a considerable time, and endeavoured several ways to condense it, but in vain. And when I had a mind to divert strangers or friends, I have frequently taken one of these bladders, and pricking a hole therein with a pin, and compressing gently the bladder near the flame of a candle till it once took fire, it would then continue flaming till all the spirit was compressed out of the bladder, which was the more surprising, because no one could discern any difference in the appearance between these bladders, and those which are filled with common air.

'But then I found that this spirit must be kept in good thick bladders, as in those of an ox, or the like; for if I filled calves' bladders therewith, it would lose its inflammability in twenty-four hours, though the bladders became not relaxed at all.'

But the application of the gas thus generated to the purposes of economical illumination is of much more recent date, and the merit of introducing it is principally due to Mr. Murdoch, whose observations upon the subject are published in the Philosophical Transactions for 1808. He first tried it in Cornwall, in the year 1792; and afterwards, in 1798, established an apparatus upon a more extended scale at Boulton and Watt's foundry at Birmingham; and it was there that the first public display of gas lights was made in 1802, upon the occasion of the rejoicings for peace. These, however, were but imperfect trials, when compared with that made in 1805 at Messrs. Phillips and Lee's cotton mills at Manchester; and upon the results of which, all subsequent procedures, with regard to gas lighting, may be said to be founded. The whole cotton mill, and many adjacent buildings, were illuminated with coal gas, to the exclusion of lamps, candles, and other sources of artificial light. Nearly 1000 burners of different forms were employed; and the light produced was estimated equal to that of 2500 well managed candles of six to the pound.

The most important and curious part of Mr. Murdoch's statement relates to the cost of the two modes of lighting (namely, by gas and candles) per annum. The cost of the coal, used to furnish the gas, amounting annually to 110 tons, was £125. Forty tons of coals to heat the retort £20, and the interest of capital sunk, with due allowance for accidents and repairs, £550. From the joint amount of these items must be deducted the value of seventy tons of coke, at 1*s.* 4*d.* per cwt., amounting to £93, which reduces the total annual expense to £602; while that of candles to give the same light would amount to £2000.

Such was the flattering result of the first trial of gas illumination upon a tolerably extensive scale. In regard to its efficacy, we are informed by Mr. Murdoch, that the peculiar softness and clearness of the light, with its almost unvarying intensity, brought it into great favor with the work people; and its being free from the incon-

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venience of sparks, and the frequent necessity of snuffing, are circumstances of material importance, as tending to diminish the hazard from fire, to which cotton mills are so much exposed.

When Mr. Lee was examined by Mr. Brougham, in 1809, before a committee of the house of commons, against the Gas-light and Coke Company's bill, his evidence was then equally favorable. He said, it gave no disagreeable smell; and when questioned as to the goodness and purity of the light, 'I burn it,' said he, 'every night in my own house, instead of thirty pairs of candles.' He further added, that he found it perfectly wholesome, and that it was never complained of either in his own dwelling-house, or in the mill.

The president and council of the Royal Society proved the high opinion which they entertained of the value and importance of Mr. Murdoch's communication, on the employment of the gas from coal for the purpose of illumination, by adjudging to him count Rumford's gold and silver medals.

We are indebted to Dr. Henry, of Manchester, for some valuable researches concerning the composition of the aëriform products of several varieties of coal. He has pointed out the various composition of the gas at different periods of the distillation, and has shown the important influence of the circumstances under which the coal is distilled, upon the proportion of gas yielded, and its fitness for the purposes of illumination. This fact attracted the notice of Mr. Clegg, the engineer of the Gas-light Company, who has founded upon it several ingenious improvements in the construction of the retorts employed at the Westminster gas works. Coal in large heaps, and gradually heated, affords less gas, and more water and tar, than when it is extended over a considerable surface, and suddenly brought to a red heat. It is also very advantageous to dry the coal before its introduction into the retort.

In a small gas apparatus, erected in the laboratory of the Royal Institution, it was found that 4 lbs. of good Newcastle coal, introduced into the retort previously heated red in a shallow iron pan, may be made to afford a produce of from twenty to twenty-six cubic feet of gas, consisting of

8	Olefiant gas.
72	Carbureted hydrogen.
13	Carbonic oxide and hydrogen.
4	Carbonic acid.
3	Sulphureted hydrogen.
100	

The carbonic acid and sulphureted hydrogen are separated by the lime in the purifiers.

The same quantity of coal introduced into the cold retort, and gradually heated, afforded only twenty-two cubic feet of gas, consisting of

5	Olefiant gas.
70	Carbureted hydrogen.
18	Carbonic oxide and hydrogen.
6	Carbonic acid.
1	Sulphureted hydrogen.
100	

The specific gravity of the former gas, that of air being = 1000, was = 560, and of the latter = 555: the fitness of gases for the purposes of illuminating is, generally speaking, directly as their specific gravity.

These experiments lead to the conclusion, that a chaldron of good Wallsend Newcastle coals would afford from 17,000 to 20,000 cubical feet of gas, but the process of distillation, as now carried on in the large establishments for lighting the metropolis, seldom affords a larger average produce than 12,000 cubical feet. There can, however, be little doubt that, by improvements in the construction and management of the retorts, the highest of the above averages might be procured; and calculating upon this produce of gas, and upon the other substances yielded by the operation, we obtain a curious and striking result.

The average value in London of a chaldron of the best Newcastle coals is £3. The value of the products of its distillation is as follows:—

	£.	s.	d.
1¼ chaldron of coke, at 31*s*. . .	1	18	9
12 gallons of tar, at 10*d*. . . .	0	10	0
18 gallons of ammoniacal liquor, at 6*d*.	0	9	0
20,000 cubic feet of gas, at 15*s*. per 1000 cubic feet	15	0	0
	£17	17	9

From the value of products must, of course, be deducted, the value of the common coal employed in the furnaces for heating the retorts, amounting to about five chaldrons for every five-and-twenty chaldrons submitted to distillation, and the expense incurred by wear and tear, with the wages of the laborers, and lastly, the interest upon capital. Mr. Murdoch's estimate, already quoted, will be found pretty accurate upon these heads.

The tar is frequently employed for the production of gas, either by mixing it with small coal in the retorts, or by passing it through a red hot tube. Every pound yields between seventeen and eighteen cubic feet, containing from fifteen to twenty per cent. of olefiant gas. When, therefore, it has been cleansed by lime, it burns with a very brilliant flame, and is a most improving addition to the common gas. Wigan and Cannel coal yield the best and largest proportion of gas for the purposes of illumination, but it is seldom it can be employed on account of its high price.

The burners, or tubes whence the gas issues for combustion, may be infinitely and tastefully varied. The varieties commonly employed are the bat's-wing burner, and the Argand burner. The former consists of a brass tube having a slit at its extremity about a quarter of an inch long and one-fortieth of an inch wide. The latter is composed of two concentric brass tubes, about two inches long, closed at bottom by a ring of brass, and at the top by one of steel, perforated with sixteen or eighteen holes, of one-thirtieth of an inch in diameter. The gas enters the cavity between the tubes, and issues from the circular row of apertures, where it is inflamed, and hav-

ing a due supply of air, within and without, burns very beautifully when a proper glass is placed over the burner. These burners, when very carefully regulated, consume about three cubical feet of gas per hour, and give light equal to that of six wax candles; but it is requisite, on account of carelessness and mismanagement, to allow four cubical feet to each burner per hour. The bat's wing burner should not consume more than three cubic feet per hour.

Besides the different varieties of coal, some of which, as has been hinted, are much preferable to others, and coal tar, a useful gas may be procured from a variety of other substances; and in the laboratory of the Royal Institution, the retort is often fed with waste paper, saw-dust, pieces of wood, &c., and the gas is consumed for a variety of purposes where oil was formerly employed.

The following are the results of some experiments upon these subjects, compared with the produce from coal.

1. The retort was charged with four pounds of coal. The quantity of gas amounted, after having passed the purifiers, to twenty cubic feet. The coke remaining in the retort weighed 2 lb. 8·7 ozs.

The heating power of the gas flame was compared with that of a wax candle, by ascertaining the time required by each to raise two ounces of water, in a thin copper vessel, from 55° to 212°. The flames were made as similar in dimensions as possible, and so placed that their joints just touched the bottom of the vessel. The heating power of the candle being assumed as = 1, that of the coal gas flame was = 1·5.

2. Four pounds of the dried wood of the common willow yielded sixteen cubical feet of gas, and fourteen ounces of charcoal remained in the retort. The gas burned with a very pale blue flame, and was unfit for the purpose of illumination, and contained no olefiant gas.

3. Four pounds of the wood of the mountain ash afforded fifteen cubical feet and a half of gas, and thirteen ounces and a half of charcoal. The flame was very pale and blue.

4. Four pounds of white birch wood gave fourteen cubical feet of gas, and twelve ounces of charcoal. The flame similar to 2 and 3.

5. Four pounds of hazel wood yielded thirteen cubical feet and a half of gas, and twelve ounces and a half of charcoal. Its heating power was = 1·2. It burned with a better flame than 2, 3, and 4, but the intensity was not sufficient for any useful purpose of illumination.

6. Four pounds of writing paper gave eighteen cubical feet of gas, and the remaining charcoal, which beautifully retained the form and texture of the paper, weighed eleven ounces and a half. The heating power of the gas was = 1·6. It burned with a flame nearly approaching in illuminating power to that of coal gas.

These experiments, along with others which it is thought unnecessary to notice, prove that the gas from woods is not fit for the purposes of illumination, although, as evolved during the production of charcoal, it may conveniently be consumed in the laboratory as a source of heat.

We may now describe the retort oven for generating gas on a large scale. Fig. 1, plate I. Gas Light, exhibits a longitudinal section, and fig. 1. shows the front elevation of the oven, built about ten feet above the ground, upon piers or arches, which saves brick-work, and allows a stage or platform to be erected in front of the fire places of the ovens. Between the back part of the ovens and the wall of the building in which they are erected is left an empty space of a few inches to prevent the heat of the oven being communicated to the wall.

The whole interior of the oven, as well as the horizontal flue which passes underneath the crown of it, near the upper tier of retorts, is lined with fire-bricks. The uppermost part or crown of the arch is constructed of large fire-bricks, of such a shape as will allow to flatten the upper part of the arch as much as possible, in order to contract the space between the two upper retorts and the crown of the arch of the oven.

R, R, fig. 2 and 3, are cylindrical retorts, placed horizontally in the oven, the lower series are either supported by a large fire-brick, placed edgeways underneath the retort, or by means of a stout wrought iron pillar, as shown in the design. The two upper retorts are supported by wrought iron straps, T, T, T. The straps pass through the brick-work of the upper part of the oven, as shown in the designs, and they are secured with screws and nuts to an iron bearing bar, the extremities of which are supported by the outer walls of the oven. Each retort is furnished at the extremity opposite to the mouth-piece with a short projecting piece or tail let into the brick-work of the oven.

M, fig. 4, shows the mouth-piece of the retort with its cross bar and hand screw; and fig. 5 shows the mouth-piece drawn to a larger scale. E is the hand-screw, with its cross or bearing bar D, which passes through the projecting arms C, C. The lid of the mouth-piece has a conical edge, so that it fits close when put into its place by means of the hand-screw E.

F, fig. 6, is the fire-place, with the ash-pit E of the oven. The door of the ash-pit is provided with three slits covered within by a register slide, to regulate the admission of air as occasion may require. The fire passes freely and uniformly round all the retorts, and the whole cavity of the oven acquires an equable temperature, which it retains, if the workman takes care to admit as little air as possible through the register door of the ash-pit, when the upper part of the arch, or crown of the oven has acquired a bright cherry red heat. The liquid substances, namely the tar and ammoniacal fluid, collect in the hydraulic main H, which is furnished with a perpendicular diaphragm or partition plate to cause a certain quantity of the liquid deposited in it to accumulate to a certain height, and thus to seal the perpendicular pipe P. The liquid cannot flow out of the horizontal pipe H, till it rises to the level of the diaphragm.

K, fig. 7, is the discharging pipe, connected with the upper part of the horizontal main H: it serves to convey away the gaseous and liquid products from the hydraulic main H. By means of this pipe the tar and ammoniacal fluids are coveyed into any convenient reservoir, called

the tar cistern, which is perfectly air-tight, and from this vessel the liquid may be drawn off by means of a pipe or stop-cock. The extremity of the pipe which communicates with the liquid is bent downwards, so that no air can enter the vessel.

It is essential that the condensation of the vaporous fluids should be fully completed before they reach the tar vessel. To effect this, there is usually allowed a considerable distance to intervene between the discharging pipe, K, and the reservoir destined to receive the condensable products; or the pipe is made to pass through a vessel containing water, called the condenser, which acts in a similar manner as the refrigeratory of a common still. It is obvious that it is immaterial how the condensation of the vaporous fluid is effected; it is essential, however, that the condensation should be complete before the liquid tar and ammoniacal fluid reach the reservoir destined to receive these products. The gaseous fluid, which accompanies the condensable products, is then made to pass into the lime machine, in order to be deprived, by means of quicklime and water, of the portion of sulphureted hydrogen and carbonic acid gas which was combined with the gas. And, when this has been accomplished, the purified gas is conveyed into the gas-holder, where it is stored up for use. In some establishments, the hydraulic main is furnished with two discharging pipes; the one carries away the condensable fluid, into which the perpendicular pipes, P, fig. 8, dip, whilst the other serves to convey away the gaseous fluids to a condenser, in order to deposit the vaporous portion of condensable liquid it may contain, and from thence the gas passes into the purifying apparatus, or lime machine. X, fig. 9, is a small screw plug, which, when opened, restores the equilibrium of the air within and without the retort previous to the lid being taken off, to prevent the loud report which otherwise happens when the lid or cover of the retort is suddenly removed. To avoid these explosive reports, which had become a nuisance to the neighbourhood of gas works, the practice of gradually withdrawing the lid of the retort, and, at the same time, presenting a lighted torch, has been adopted at some works, which fully remedies the evil.

The quantity of gas to be obtained from coal varies according to the coal employed and the manner in which it is treated: the quality also depends on the mode of applying the heat. Taking it for granted that the most advantageous method of decomposing it is followed, the quantity from the different kinds of coal varies. In stating the proportions, therefore, we can come only at an average conclusion.

Mr. Peckston, in his work on Coal-gas, states, that a chaldron of Newcastle Wall's End coal will yield 10,000 feet, supposing it decomposed under the most advantageous circumstances; 2 cwt. will, therefore, yield about 750 feet. At Edinburgh, 2 cwt. of Parrot-coal yield, on an average, 860 feet of gas. According to Mr. Neilson, engineer, Glasgow, 2 cwt. of Lesmahago coal will produce 1003 cubic feet of gas, allowing four and a half each pound. Mr. Russell, of London, has stated the quantity from Newcastle coal to be the same, four feet and a half per pound. Mr. Dewy, in a paper in the Annals of Philosophy, asserts, that at Liverpool, Mr. King considers it good economy to procure 7000 feet from a ton of Wigan Orral coal, making it only 700 feet from 2 cwt., a very little more than three feet per pound. He has stated also, that, at Glasgow, 1200 feet are procured from 2 cwt. of cannel-coal, which is considerably above that mentioned by Mr. Neilson. From these various statements, the general conclusion has been drawn, that 2 cwt. of good coal ought to yield about 1000 feet of gas.

With respect to the quantity to be obtained from oil, this must, of course, also depend on the nature of the oil, and the manner of decomposing it. Mr. Ricardo mentions, that, from repeated trials in various oil-gas establishments, it has been ascertained that one gallon produces 100 cubic feet. From the experiments of Mr. Brande, and Mr. Faraday, it appears that the same quantity affords from 100 to 110 feet. In some instances it has been known to amount to about 120; but in these cases, it was not good, the additional quantity having been derived from substances put into the retort. At Leith, a gallon of whale oil affords from ninety-eight to 108 cubic feet; and the same quantity of palm-oil, from ninety-seven to 114. It may be considered a fair estimate to obtain 100 feet from each gallon, presuming, of course, that the oil is decomposed under the most favorable circumstances, so as to get a gas possessing the greatest illuminating power; for on this every thing depends. From experiments performed on a small scale, and from trials made at Leith, Dr. Fyfe found, that if the oil be allowed to flow into a retort brought just to a red heat, there is comparatively little gas, but a great deal of volatile oil. When the retort is brought to an intense heat, lamp-black is formed in considerable quantity; so that, in both of these ways, there is a great loss. When the retort is at a full red heat, the oil seems to undergo decomposition most easily, and to give off the largest proportion of good gas.

In conducting the decomposition of coal, the evolution of the gas is far from being, with regard to quantity, uniform, during different periods of the distillatory process. The formation of the gas is more rapid in the beginning of the process, and gradually slackens as the operation proceeds. The gas also differs in its chemical constitution, at different periods of the process; although, in the case of large supplies, this difference is of little consequence after the gas is purified in the usual manner. The former consideration, however, has given rise to various modes of operating, of which it will be proper to take some notice.

It must be obvious that, in proportion as the mass of coal in the retort becomes carbonised or converted into coke, the exterior surface becomes a gradually increasing obstacle to the action of the heat upon the interior or central part of the coal remaining to be decomposed. The heat required on that account must be more intense, and kept up to purpose; and the extrication of gas becomes slower and slower, as the operation proceeds. The loss occasioned by this

rapid diminution of the means employed, is serious in every point of view, in regard both to the quantity of fuel used and time wasted, but it is unavoidable in the operation of decomposing coal in masses or layers from five to ten inches in thickness, and must be a great drawback on the value of the gas-light discovery. The loss of fuel, it is obvious, must be just in proportion to the quantity of carbonised matter, or coke, which is kept hot to no purpose, awaiting the decomposition of that portion of coal which it is the very means of protecting from becoming undecomposed.

A striking exemplification of this statement will be seen in the following table, exhibiting the result of the progressive produce of coal gas, obtainable, in a given time, by means of cylindrical and parallelopiped retorts.

Experiment with one Cylindrical Retort, containing two bushels of coal.

Hours of the distillatory process.	Quantity of gas produced.
First hour	115 cubic feet.
Second hour	81
Third hour	78
Fourth hour	70
Fifth hour	66
Sixth hour	55
Seventh hour	49
Eighth hour	42
	555

The quantity of gas is at the rate of 10,000 cubic feet to the chaldron (27 cwt.) of coal.

Experiment with eighteen Cylindrical Retorts, containing one chaldron of coal.

Hours of the distillatory process.	Quantity of gas produced.
First hour	2000 cubic feet.
Second hour	1488
Third hour	1400
Fourth hour	1301
Fifth hour	1208
Sixth hour	1000
Seventh hour	897
Eighth hour	691
	9985

This experiment was made with retorts set on the flue plan.

The coal employed was (Bewick and Craister's Wall's End) Newcastle coal.

Experiment with thirty-six Parallelopipedal Retorts, each containing two bushels of coal.

Hours of the distillatory process.	Quantity of gas produced.
First hour	4·058
Second hour	3·028
Third hour	2·871
Fourth hour	2·526
Fifth hour	2·380
Sixth hour	1·971
Seventh hour	1·754
Eighth hour	1·450
	20·038

The same heat, as we have seen from the first table, which is necessary during the hour of operation, for the evolution of 115 cubic feet of gas, is required in the eighth hour for the production of no more than forty-two cubic feet, being a decrease in effect of nearly two-thirds.

When larger retorts are employed for decomposing coal, in masses from five to ten inches in thickness, the loss of heat is in a much greater ratio.

In the hope of remedying, in some measure, the evils thus distinctly ascertained to arise from the undue thickness of the masses of coal subjected to the distillatory process, there have not been wanting manufacturers who have had recourse to experiments on a large scale, to ascertain with certainty whether they might not be gainers by suffering the distillatory process, when the retorts are charged with two bushels of coal, to proceed only for the space of six hours, instead of eight. But the result of these experiments has shown satisfactorily, that it is more profitable to keep up the distillatory process for a period of eight hours, with the retorts fully charged, than to abridge the operation by terminating it at the end of six hours. Others, again, have imagined, that it would be more economical to decompose a less quantity of coal at once, or to decrease the thickness of the stratum of coal in the cylindrical or in any of the before-named retorts; but then, again, serious difficulties occur in the practice. The more frequent charging of the retorts and luting on the covers, which such a mode of operating requires, occasions a prodigious waste of fuel, time, and labor. A greater number of retorts, and more workmen, must likewise be employed, in order to produce the requisite quantity of gas daily, which the manufacturer is called upon to supply; more space of ground is required, and more dead capital must be sunk in the establishment. The more frequent and sudden alterations of temperature which the retorts necessarily suffer, by the more frequent introduction of cold coal, renders them extremely liable to become injured; and it is almost impossible to maintain a number of retorts, thus worked, at a uniform temperature.

One of the best purposes to which the tar produced in the distillation of coal can be applied, is to the production of gas, which yields in the proportion of about eighteen cubic feet from each pound, and of an excellent quality for illumination. The following is an account of Mr. Clegg's apparatus for its decomposition, and which appears to answer better than any yet devised:—

A, plate I., fig. 10, is a tar cistern. B, a cock by which it is drawn off. As a sufficiently small stream of tar is apt to stop, by its stiffness, a larger quantity than is wanted is allowed to run into E, upon the edge of the dividing plate C, adjusted by the screw D: the excess runs off by a waste pipe into any proper vessel, while a due portion trickles through E into F, and runs down G, G, into H, where, when the tar has reached the level I, it is conducted into the retort K, L, M, the return of gas being prevented by the immersion of the end of the tube G, G, into the tar in the vessel H. The retort, resembling a bent pipe or syphon, is so inserted in a proper flue, that the ends K, M, provided with lids or

mouth-pieces N, O, may be easy of access, and one above another: the lower branch L,M, may be placed almost horizontally, and the upper should form with it an angle of about ten degrees. The retort being made red hot, the tar will be decomposed, and the gas, and some other products, will flow from the end M, by the pipe P, into the vessel Q, in which is a partition plate R, fig. 11, extending about half way down, and allowing the heavy products to accumulate for a convenient time before they can interfere with the passage of the gas, which passes to the purifiers, as usual, by the pipe S, S, fig. 12, is a moveable lid for cleansing the vessel. It is not thought necessary particularly to describe the construction of the furnace, which may be varied according as circumstances require.

We may now describe the *gas-metre* erected by Mr. Accum at the works in the royal mint. It consists of a hollow wheel or cylinder, made of thin iron plate; revolving upon an horizontal axis, in the manner of a grind-stone; this wheel is enclosed in a cast iron air-tight cask containing water.

The cylinder, or wheel, is composed of two circular channels, 1 and 2, fig. 1 plate II. concentric to each other. The larger or outer channel, 1, is divided into three equal compartments, by partition plates, marked *a*, as shown in the design. The compartments are provided with hydraulic ducts or valves, made at the upper part of every partition plate *a*, *a*, *a*, and by means of them a communication is formed between the larger concentric channel, 1, and the outer case in which the wheel revolves. Similar valves are also placed at the foot of each partition plate, they are seen near the letters *a*, *a*, *a*, and by this means a communication is established, between each compartment or chamber of the larger concentric channel, 1, and the smaller interior circle, 2, of the wheel.

On inspecting the design, it will be seen that the valves are situated in opposite directions to each other; hence there can be no communication either between the inner smaller concentric channel 2, and the larger compartment of the wheel 1, nor between the latter compartment, and the exterior case, in which the wheel revolves, except through the valves *a*, *a*, *a*, which form the communicating ducts. It will be seen also, that these valves are carried from one chamber of the machine into another, but in opposite directions; the entry into one chamber being in the opposite direction to the hydraulic duct, placed in the other chamber. From these particulars the action of the machine will be obvious.

Let us suppose that the outer case, in which the wheel revolves, be filled with water to about an inch above the axis of the wheel, and that gas is conveyed into the interior small channel, by a pipe, passing along the axis, so as to allow the wheel to turn freely round, and that the pipe is turned up at right angles in the inner chamber, and projects a little way above the surface of the water, as shown in the design. The gas then must enter into the interior chamber of the wheel above the surface of the water, and must press against the adjacent partition; it will therefore cause the wheel to turn round, and, in consequence of this motion, the next partition plate will press the gas against the surface of the water, and cause it to pass through the hydraulic opening, in an equal quantity to that which is introduced into the exterior chamber. This alternate filling, and discharging, of the contents of each chamber, will take place once during every revolution of the wheel, and hence the number of times each particular chamber has been filled and emptied of gas may be known. In fact this machine performs the office of three revolving gas-holders, fixed on an horizontal axis, and moving in a cistern, which is the outer case of the machine. One gas-holder, or one compartment of the machine, is always in the act of becoming filled with gas, another is emptying its contents into the outer case, from which it passes into the reservoir, where it is to be stored up, or to the lamps, where it is to be burned, and the third compartment is stationary, or in an equilibrium. The wheel in any situation will therefore always have one of its receiving, and one of its discharging valves open, and consequently it will revolve.

Now to ascertain the quantity of gas discharged by one revolution of the wheel, we need only to know the capacity of the chambers, and add them together. Let us for example suppose, that each chamber contains 576 cubic inches, then one revolution of the wheel discharges a cubic foot of gas. To register the total number of revolutions which the wheel makes in a certain time, a train of wheel-work is connected with the axis of the metre; it consists of a pinion impelling a common train of wheel-work, composed of any number of wheels. The pinion on the axis of one wheel, acts into the circumference of the next wheel, and, the circumference of the wheel being as ten to one, it is obvious while the metre makes 1,000,000 revolutions, if the series consist of six wheels, the last wheel of the series will only have made one revolution. Each axis of the wheels is provided with a finger and dial-plate, divided into ten parts; therefore any number of revolutions may be read off at any time by inspection betwixt 10,000,000 and one. The velocity with which the metre acts, is of course in proportion to the quantity of gas passing through it. Thus suppose there is a burner or gas-lamp connected with the machine, of one foot capacity, lighted, which consumes four cubic feet of gas in an hour, the gas metre performs four revolutions per hour, and so on for every number of burners or lamps, not exceeding the number which the machine is calculated to supply.

The gas-holder, of the original construction, consists of two principal parts; first, of a cistern or reservoir of water, usually constructed of masonry, or of cast-iron plates, bolted and screwed together; and secondly, of an air-tight vessel which is closed at top and open at bottom, inverted with its open end downwards into the cistern of water. This vessel is always made of sheet-iron plates riveted together air-tight, and was suspended by a chain or chains, passing over wheels, supported by a frame work. If the common air be allowed to escape from the inner vessel, when its open end is under the edge of the water in the outer cistern, it will freely descend, and water will occupy the place of the

air; but if the avenue of the escape be stopped, and air be made to pass through the water, the suspended inverted vessel will rise to make room for the air. And, again, if the suspended vessel be counterpoised by a weight, so as to allow it to be a little heavier than the quantity of water which it displaces, it will descend, if the entering gas be withdrawn through an outlet made in the vessel to permit the gas to escape. But if the outlet be stopped, and air again be admitted under the vessel, it will rise again. The apparatus, therefore, is not only a reservoir for storing up the gas introduced into it, but serves to expel the gas which it contains, when required, into the pipes and mains connected with this machine. According to this construction of the apparatus, the interior inverted vessel forms strictly what is termed the gas-holder. It is suspended as already stated in the outer cistern, by a chain or chains, passing over pulleys, supported by blocks and frame work, and to the chain there is affixed a counterpoise balance, of such a relative weight as to allow the gas-holder a slow descent into the water, in order to propel the gas into the mains or vessel destined to receive it, with a very small and uniform weight.

It will be obvious that, when a gas-holder of this construction becomes immersed in the water, it loses as much of its weight as is equal to the bulk of water which it displaces; and hence to render its descent uniform, and to preserve the gas within of an invariable density, at any degree of immersion, a greater counterpoise is required as the gas-holder rises out of the water. Among various methods which have been adopted to attain this object, the ends of the chains by which the gas-holder is suspended, have been fastened in separate grooves, in the edge of a large wheel or pulley, of such a diameter, that the gas-holder rises to its full height before the wheel makes one revolution. In another groove, in the edge of the same wheel, was fixed the end of another chain, to which a balance weight was suspended. This weight was made nearly equal to the weight of the gas-holder. To equalise the density of the gas within the gas-holder, at any degree of immersion of the vessel, the weight chain was made to pass over a wheel, furnished with a spiral groove, so as to make the radii of the wheel change reciprocally with the relative weight of the gas-holder, and consequently to render the pressure of the gas-holder constant and uniform.

Another and more elegant method of obtaining a uniform elasticity of the gas within the gas-holder, and which has been more generally adopted, consists in passing the chain or chains by which the gas-holder is suspended over a pulley or wheels, and making the weight of that portion of the chain which is equal to the depth of the gas-holder, or that part of it which becomes immersed in the water, equal to one-half of the weight of the specific gravity of the gas-holder. It is obvious that, before the purified gas can be admitted into the gas-holder, the vessel must be allowed to descend to the bottom of the exterior cistern, in order to get rid of the common air which it contains. This may be effected rapidly by opening the man-hole at the top of the gas-holder, to cause the vessel to descend completely into the outer cistern filled with water. The man-hole is then screwed up again air-tight, and the machine is ready to receive the gas. It is obvious that the operation of opening the man-hole, for letting out the common air, requires only to be done once prior to the commencing of the working of the apparatus.

The collapsing gas-holder was contrived by Mr. Clegg, and certainly, of all the contrivances which have been invented for collecting and storing up large quantities of gas, this machine must be pronounced to be by far the most simple, economical, and efficient. The striking advantage of the revolving gas-holder is, that it enables the dimensions of the tank to be very much diminished, where the nature of the ground will not permit of a cistern of great depth being sunk, except at an extraordinary expense; but the still superior feature of the collapsing gas holder which we now come to describe, is, that it may be constructed of any required capacity, and adapted to a tank or cistern of such diminished depth, as scarcely to deserve that name. It requires a sheet of water no more than eighteen inches in height, so that it may be constructed in or upon ground of all descriptions, not only with every possible facility, but at an immense saving of expense.

Fig. 2, plate II. Gas Light, exhibits a perspective view of this gas-holder. It is composed of two quadrangular side plates joined to two end plates meeting together at top in a ridge like the roof of a house. The side and end plates are united together by air-tight hinges, and the joints are covered with leather, to allow the side plates to fold together, and to open in the manner of a portfolio. The bottom edges of the gas-holder are immersed in a shallow cistern of water, to confine the gas. By the opening out or closing up of the sides and ends of the gas-holder, its internal capacity is enlarged or diminished, and this variation of capacity is effected without a deep tank of water to immerse the whole gas holder in, as required in the ordinary construction of rising and falling gas-holders. The collapsing gas-holder requires therefore only a very shallow trough of water to immerse the bottom edges of the gas-holder to prevent the escape of the gas introduced into it. The lower edges of the thin gas holder, which dip in water, are made to move in an horizontal plane or nearly so, when they are opened, so that they dip very little deeper in the water when shut or folded together, than when opened out.

For this purpose the top or ridge joints, which unite the two sides of the gas-holder, are slightly raised up when the sides close or approach together, or slightly depressed when the sides open out or recede from each other. To guide the whole gas-holder in this movement two perpendicular rods rise from the bottom of the shallow tank which pass through sockets in the ridge joints at the upper part of the gas-holder. These sockets are secured by collars of leather round the shafts or rods, to prevent the escape of the gas, and they are braced by chains proceeding from their upper extremities and fastened at the ground on each side of the tank

The weight of the gas-holder is balanced by levers bent in the form of the letter L, and placed in the inside of the gas-holder. These levers move on centre-pins fixed at the bottom of the shallow trough, which pass through the angles of the L levers. The perpendicular arms of the levers are jointed at their upper extremities to the sides of the gas-holder, nearly in the middle. At the ends of the horizontal arms of the L levers, are weights to counterbalance the weights of the gas-holder, and both sides of the gas holder are provided with these kinds of levers, which, at the same time that they balance its weight, cause the ridge joint of the machine to rise and fall, as before described, so that the under edges of the gas-holder, which are immersed in the water to confine the gas, must move in an horizontal plane instead of describing an arc of a circle as they would do if the ridge joint was a fixed centre of motion. When the gas-holder is closed, the perpendicular arms of the levers stand nearly in a perpendicular position; but when the gas-holder is opened out, the levers become inclined. And as they move upon a fixed fulcrum at their lower extremities, and are jointed to the sides of the gas-holder at their upper extremities, they allow the whole of the gas-holder to descend gradually upon the guide rods nearly in the same degree as the lower edges would rise up if the ridge joint was stable, and if the sides described an arc of a circle. It is obvious, however, that the latter movement is not very essential, but it is convenient and necessary to make a very inconsiderable depth of water, in the trough or tank, serve the purpose intended. It may be also observed, that the sides of the collapsing gas-holder may be made to unfold or open on a fixed ridge point as a centre of motion; but it will then require a considerable depth of water in the tank to keep the lower edges of the sides and ends of the machine always beneath the surface of the water, because the sides of the gas-holder then describe an arc of a circle when they are open.

Mr. Malam has contrived an instrument which serves to exhibit upon a dial-plate the quantity of gas which passes through a tube in its progress to the burners. It is represented in fig. 3 plate II., where *a* is the pipe through which the gas passes that is to be measured; *b* an air-tight vessel, like bellows, with the upper flap rising or falling upon a joint or hinge, and constructed of leather or cloth, protected against the chemical action of the gas. From this vessel the gas escapes through the aperture *c*, into the outer case *d d*, and hence through the exit-pipe *e*, to the burners. The aperture *c*, is partially enclosed by the flat plate *f* suspended or swinging upon the rod *g*, and accommodating itself to the descent of the flap. When equal quantities of gas pass along in the direction *a, f, b, c, d, e*, in equal spaces of time, which is generally the case, the quantity of gas will be indicated by the clock movement shown in the upper part of the figure, provided the clock always stops with the supply of gas, and goes again when the supply commences; for effecting which, there is a particular contrivance, which shall be afterwards described. The clock movement in the cylindrical box *l*, supported and fixed upon legs *m m*, gives motion to an axle carrying a small eccentric wheel, or crank *n*, in order to raise the lever *o*, which has its fulcrum on the axle of the wheel *q*, and rests upon the periphery of the eccentric wheel. The lever being thus raised, a small spring catch *p*, attached to it, takes into the teeth of the wheel *q*, and, when the lever again descends, the catch drives the wheel round a short way. Another spring *r* holds the wheel as the lever again rises; and, in this manner, by many revolutions of the eccentric wheel *n*, raising and lowering the lever *o*, the wheel *q* is driven entirely round. A pinion upon the axle of *q* works in the wheel *s*, which carries the index round a dial-plate, and thus registers the quantity of gas which has passed uniformly through the aperture *c*. Should the pressure of the gas, however, not be uniform, the flap of the vessel *b* will be raised or depressed accordingly, as indicated by the dotted line. When this happens, the connecting rods *h, i, k*, will raise or depress the lever *o*, so as to make it move through a greater or less arch, and consequently drive forward a greater or less number of the teeth of the wheel *q*. Upon the arm *k* is a stop *t*, which, when the flap of *b* descends and contracts the passage of the gas, will, by the connecting arms, *h, i, k*, be raised so high as to prevent the lever from being acted upon by the eccentric wheel during a part of its revolution; consequently, the arch described by the lever *o* will be smaller, and the progress of *q* and *s* diminished: but when the flap of the vessel *b* is raised, and enlarges the passage for the gas, then the stop *t* will be brought sufficiently low to enable the lever *o* to be acted upon by the periphery of the eccentric wheel during the whole revolution: in consequence of which, the arch described by the lever *o* will be greater, and the progress of the wheels *q* and *s* increased. A nut *v*, having a right and left screw, is employed to adjust the length of the rod *k*. For the purpose of stopping the clock movement, when the supply of gas is stopped, a paul lever *u* rises with the rod *k*, for the purpose of locking the eccentric wheel. In order to stop the passage of gas when the clock movement requires winding up, a pinion upon the axis of the fusee works in the dotted toothed arch *w, w*. The operation of winding up, carries the rack back; but, as the movement goes down, the rack advances, by which a tooth *x*, upon its axle, presses upon the short end of the lever *y*, which it raises, and causes to lift the rod *k*: at the same time making the rod *h* press down the flap of *b*, in order to bring the aperture *c* in contact with the plate *f*, and thus obstruct completely the passage of the gas.

Messrs. J. and P. Taylor are the first persons who have resorted to oil as a substance from which gas for illumination could be easily and cheaply prepared; and, in the construction of a convenient apparatus for the decomposition of this body, they have fully shown its numerous advantages over coal, while they have afforded the means of producing the most pure and brilliant flame from the inferior and cheap oils, which could not be used in lamps. The apparatus for the purpose is much smaller, much

simpler, and yet equally effectual, with the best coal-gas apparatus. The retort is a bent cast-iron tube, which is heated red by a small convenient furnace, and into which oil is allowed to drop by a very ingenious apparatus; the oil is immediately volatilised, and the vapor in traversing the tube becomes perfectly decomposed. A mixture of inflammable gases, which contains a great portion of olefiant gas, passes off; it is washed by being passed through a vessel of water (which dissolves a little sebacic acid, and which seldom requires changing), and is then conducted into the gasometer.

The facility and cleanliness with which gas is prepared from oil, in the above manner, may be conceived from the description of the process. A small furnace is lighted, and a sufficient quantity of the commonest oil is put into a small iron vessel, a cock is turned, and the gas after passing through water in the washing vessel goes into the gasometer. The operation may be stopped by shutting off the oil, or, to a certain extent, hastened by letting it on more freely; the small quantity of charcoal deposited in the retort is drawn out by a small rake, and the water of the washer is very rarely changed.

The gas prepared from oil is very superior in quality to that from coal; it cannot possibly contain sulphureted hydrogen, or any extraneous substance; it gives a much brighter and denser flame; and it is also more effectual, viz. a smaller quantity will supply the burner with fuel. These peculiarities are occasioned, in the first place, by the absence of sulphur from oil, and then by the gas containing more carbon in solution. As the proportion of light given out by the flame of a gaseous compound of carbon and hydrogen is, in common circumstances, in proportion to the quantity of carbon present, it is evident that the gas which contains a greater proportion of olefiant gas, or supercarbureted hydrogen than coal gas, will yield a better and brighter light on combustion. It is necessary, in consequence of the abundance of charcoal in solution, to supply the gas when burning with plenty of atmospheric air; for as there is more combustible matter in a certain volume of it than in an equal volume of coal gas, it of necessity, must have more oxygen for its consumption. The consequence is, that less gas must be burnt in a flame of equal size, which will still possess superior brilliancy; that less is necessary for the same purpose of illumination; and that less heat will be occasioned. From five and a half to six cubical feet of coal gas are required to supply an Argand burner for an hour; two cubical feet to two and a half of that from oil, are abundantly sufficient for the same purpose. One important advantage gained by the circumstance, that so small a quantity of this gas is necessary for burners, is, that the gasometer required may be small in proportion. The gasometer is the most bulky part of a gas apparatus, and that least capable of concentration; and wherever it is placed, it occupies room to the exclusion of every thing else. Some very ingenious attempts have been made to diminish its size and weight, as in the double gasometer, and others, but without remarkable success. Here, however, where the room required to contain the gas is directly diminished, the object is so far obtained; and when that takes place to one-half, or even one-third, it is of very great importance. It in a great number of cases brings the size of the apparatus within what can be allowed in private houses; and, in consequence of the rapidity with which the retort can be worked, the gasometer may again be reduced to a still smaller size. Another advantage gained by the small quantity of gas required for a flame is the proportionate diminution of heat arising from the lights. The quantities of heat and light produced by the combustion of inflammable gases are by no means in the same constant relation to each other: one frequently increases, whilst the other diminishes, and this is eminently the case when coal gas and oil gas are burned against each other. The quantity of heat liberated is, speaking generally, as the quantity of gas consumed, and this is greatest with the coal gas; but the quantity of light is nearly as the quantity of carbon that is well burnt in the flame; and this is greatest in the oil gas.

The very compact state in which the apparatus necessary for the decomposition of oil can be placed, the slight degree of attention required, its certainty of action, its cleanliness, and the numerous applications of which it admits, in the use of its furnace for other convenient or economical purposes, render it not only unobjectionable, but useful in manufactories and establishments; and these favorable circumstances are accompanied, not by an inferiority in the flame, or increased expense, but by an improved state of the first, and saving in the latter.

Messrs. Taylors have shown great ingenuity in the construction of their whole apparatus, but the washer and gasometer deserve particular notice for their remarkable simplicity also. In the washer, two planes are fixed in a box or cistern, in a direction not quite horizontal, but inclined a little in opposite directions; the planes are traversed nearly across by slips of wood or metal, fixed in an inclined position on the under surface, and which alternately touch one side of the cistern, leaving the other open and free. These planes being immersed in water, the gas is thrown in under the lowest ridge; and, by its ascending power, is made to traverse backward and forward along the ridges fixed on the planes, until it escapes at the highest part of the uppermost ridge. Thus, with a pressure of five or six inches of water only, it is made to pass through a distance of fourteen or sixteen feet under the surface of the fluid, and become well washed. The smaller gasometers are made of thin plate iron, and, being placed in a frame of light iron work, look more like ornamental stoves than the bulky appendages to gas apparatus, which they supply. The larger ones are made very light, and, when in pieces, very portable, by being constructed of a frame of wood work, in the edges of which are deep narrow grooves; plates of iron fit into these grooves, which, being caulked in and painted over, make a light and tight apparatus. These are easily put together in any place; and may therefore be introduced into a small apartment, or other confined space,

where a gasometer already made up would not enter.

The general advantages of oil-gas, when contrasted with coal-gas, are as follows:—The material from which it is produced, containing no sulphur, or other matter, by which the gas is contaminated, there are no objections to its use, on account of the suffocating smell, in close rooms. It does no sort of injury to furniture, books, plate, pictures, paint, &c. All the costly and offensive operation of purifying the gas by lime, &c., is totally avoided when it is obtained from oil. Nothing is contained in oil-gas which can possibly injure the metal of which the conveyance pipes are made. The oil-gas, containing no unmixed hydrogen, which occasions the great heat of coal-gas, there is no greater heat in proportion from the flame of oil-gas than from burning oil in lamps, wax-candles, &c.

The apparatus for the production of oil-gas is much less expensive than that necessary to make coal-gas; it occupies much less space; it requires much less labor and skill to manage it; it is not so liable to wear and tear, and not so costly to repair as a coal-gas apparatus; there are no offensive products to remove; and, on its present improved construction, it may be introduced into any dwelling-house without nuisance. The economy of light from oil-gas may be judged of from the following data:—One gallon of common whale-oil will produce about ninety cubic feet of gas, and an Argand burner will require a cubic foot and a half per hour to maintain a perfect light; consequently, a gallon of oil, made into gas, will afford such a light for sixty hours, and the expense, at a moderate price of oil, will be, allowing for coals, labor, &c., not more for one burner than three farthings per hour.

Such a burner will be equal in intensity of light to two Argand oil-lamps, or to ten mould candles. The expense of Argand oil-lamps is usually admitted to be about 1½*d.* per hour each. Supposing ten mould candles to be burning, at four to the lb., will be 2½ lbs., costing 2*s.* 11*d.*, one-tenth part will be consumed in each hour, and the cost of the light is then 3½*d.* per hour. If wax-candles be employed, the expense of a quantity of light equal to a gas-burner, for one hour, by the same mode of reckoning allowing a candle to burn ten hours, and taking the price of wax-candles at 4*s.* 6*d.* per lb., will cost about 14*d.*

The account will, therefore, stand thus:—

	d.
Argand burner, oil-gas, per hour	¾
Argand lamps, spermaceti oil . .	3
Mould-candles	3½
Wax-candles	14

In many cases it may be desirable to use a much smaller quantity of light, than such a burner, as the one above calculated upon, might produce; and, instead of the light of ten candles, that of one or more may be given, by using burners of a different description; and the expenditure of gas and the cost will be reduced in proportion.

The oil-gas has a material advantage over coal-gas, from its peculiar richness in olefiant gas, which renders so small a volume necessary that one cubic foot of oil-gas will be found to go as far as four of coal-gas. This circumstance is of great importance, as it reduces in the same proportion the size of the gasometers which are necessary to contain it; this is not only a great saving of expense in the construction, but is a material convenience where room is limited.

The calculations on the cost of light from oil-gas are taken on the usual price of good whale-oil; but, it is to be observed, that cheaper oils will answer the purpose nearly as well, and many of these are often to be procured; and the whole expense may be materially lessened by their use.

In the course of their first experiments, Messrs. John and Philip Taylor were surprised to find that the apparatus they employed gradually lost its power of decomposing oil, and generating gas. On investigation, they discovered that the metallic retorts, which had originally decomposed oil and produced gas in abundance, ceased in a very great degree to possess this power, although no visible change had taken place in them. The most perfect cleaning of the interior of the retort did not restore the effect, and some alteration appears to be produced on the iron by the action of the oil, at a high temperature.

Fortunately the experiments on this subject led to a most favorable result, for it was found that, by introducing fragments of brick into the retort, a great increase of the decomposing power was obtained, and the apparatus has been much improved by a circumstance, which, at one time, appeared to threaten its success. A small portion of the oil introduced into the retort, still passed off undecomposed; and, being changed into a volatile oil, it carried with it a great portion of caloric, which rendered the construction of the apparatus more difficult than was at first anticipated; but, by the present arrangement of its parts, this difficulty is fully provided for, and the volatilised oil is made to return into the oil-receiver, whence it again passes into the retort; so that a total conversion of the whole into gas is accomplished without trouble, or the escape of any unpleasant smell.

The only residuum in the retort is a small quantity of carbon, and the only products besides the gas are a minute quantity of sebacic and acetic acids, and a portion of water, all which are easily separated by passing the gas through a vessel containing water.

The superiority of the light from oil-gas over other artificial lights, is fully shown by its rendering the delicate shades of yellow and green nearly as distinct as when viewed by solar light.

Mr. De Ville of the Strand, who has made many important experiments and observations on gas illumination, with a view of applying it to light-houses, is inclined to estimate the average produce in gas of a gallon of oil, at eighty cubical feet. A single jet burner, giving the light of two candles and a half, consumes half a cubical foot of gas per hour. A double jet consumes three quarters of a foot to give twice the above light, and a treble jet requires one foot. The light of an Argand burner of coal-gas, com-

pared with one of spermaceti oil, may be estimated as 2½ to 1; and of oil gas to coal gas, as 9 to 5.

A curious fact respecting Argand's burners for gas, is, that those with few holes consume a comparatively larger quantity of gas than those having a greater number:—thus,

A burner with 15 holes consumes	2⅛	cubic feet per hour.
Ditto . . 12 ditto . .	2¼	ditto.
Ditto . . 10 ditto . .	2½	ditto.

The holes being of the same dimensions in each burner.

Various statements have been given of the illuminating power of oil and coal-gas; nor is this to be wondered at, when we considerthat the quality of the gases depends so much on the mode of preparation, and take into account also the defective modes usually adopted for determining the intensity of the light afforded by their combustion. Mr. Ricardo, in his early papers on this subject, has given a very flattering account of oil gas. He states, that an Argand burner, giving a light equal to six candles, six to a pound, consumed one cubic foot per hour; and, as Mr. Accum mentions, that an Argand of coal-gas, giving a light equal to three candles, eight to the pound, consumes two feet in the same time, he has inferred, supposing the candles of the same size, the illuminating power as 4 to 1; but, taking the average of a number of experiments, he has fixed their comparative power of giving light as 3½ to 1.

In these trials, however, the gases were not brought into comparison with each other by burning them together, and the data on which he proceeds seem to be very fallacious, as it is not stated whether the candles were of the same kind in both experiments. Messrs. Taylor and Martineau have, however, come to nearly the same conclusion, that the illuminating power is as 3½ to 1, a conclusion drawn from the experiments of Mr. Brande and Mr. Faraday. A gentleman connected with the Liverpool Gas Company, in the answers to the queries put to him by the committee of the Dundee Company, replies, that the relative quantity of gas requisite to supply the same light, is as 14 oil-gas to 51 coal-gas, making their power of affording light rather more than 3½ to 1. Though the above statements place the illuminating power of oil-gas so high, a very different account is given by others. According to Mr. Neilson, Glasgow, it is not to be rated at above 2, or at all events beyond 2½, to the other as 1; and the same conclusion is drawn from a series of experiments made at Bristol, by Messrs. Herapath and Rootsey, on whose results, Mr. Peckstone has remarked, that every reliance may be placed, as they could not be actuated by party-feeling, but solely by a desire to ascertain the truth. These statements, so very discordant, must arise either from the defective mode of ascertaining the intensity of the light, or from the variable quality of the gas, both of which have had their effect.

The mode usually followed for ascertaining the illuminating power, viz. of producing the same intensity of shadow, and marking the quantity of the gas consumed in a given time is liable to many objections. It is extremely difficult, for instance, to judge with precision of the depth of shadows; besides, unless each gas is burned under circumstances favorable for producing the greatest light, the conclusion with respect to their power of illumination is not correct. Some of the experiments in which the oil-gas is stated as 3½ to 1, it has been said, were conducted by using burners of equal dimensions for both: now, it is well known that the former requires a smaller one than the latter, otherwise the intensity of the light is not in proportion to the gas consumed, part of it probably escaping combustion. The remark, with respect to the variable quality of the gas, is also of equal force. In a paper published by Mr. Dewey, in the Annals of Philosophy, some experiments on the illuminating power of the gases are stated, with a view of 'setting the matter at rest.' This we conceive they have done, as far as can be expected; but we suspect the conclusion to be drawn from them, is very different from that at which Mr. Dewey arrives. The gases were taken from main-pipes running parallel to each other, the coal-gas from the Imperial Gas Works, the other from that at Bow. Being burned so as to afford the same intensity of light, the quantities were found by accurate metres to be (taking the mean of seven trials) as 4850 to 1368, very nearly 3½ to 1. It has been supposed by some, that the specific gravity of coal-gas is a good test of its purity, the lighter it is, the greater being its power of illumination. The experiments of Dr. Henry, and others, however, disprove this; indeed, after the gases are properly purified, the heavier they are, so much the more will be the light afforded by their combustion. The gas used by Mr. Dewey was of specific gravity ·406, now this was less than pure carbureted hydrogen, which is ·555. In a note to the same paper, the editor remarks, that the results of Mr. Dewey coincide with those obtained by him and Mr. Faraday. The coal-gas they subjected to trial was, in one instance, of specific gravity ·429, in another, ·406. The oil-gas was ·965 and ·939, and their illuminating power to the former was as 3½ to 1. As the coal-gas in all of these experiments was of inferior specific gravity to carbureted hydrogen, we may reasonably infer, that they contained a considerable proportion of pure hydrogen, which, it is well known, affords a very feeble light. Dr. Henry has found the gas to vary in specific gravity from ·345 to ·650, its illuminating power increasing as it approached the maximum. The specific gravity of the coal-gas of Edinburgh, which is allowed by all to be of very superior quality, has been found to be so high as ·680. The oil-gas used by Mr. Dewey was ·939. Dr. Henry mentions, that in some of his experiments it was ·906. Dr. Fyfe found that from the small apparatus of Mr. Milne (Taylor and Martineau's), to be ·940, and which is generally allowed to be very fine, so that we take it for granted, that that of Mr. Dewey was of good quality. If then, in these trials, a good oil-gas, pitched against a very inferior coal-gas, is only as 3½ to 1, the illuminat

ing power of the former must be much reduced when brought in competition with the latter when of equally good quality; consequently, it must be far short of that stated by Mr. Dewey.

Dr. Henry, in his paper on the nature of the gases produced by the decomposition of coal and oil, proposes to ascertain their illuminating power by finding the quantity of oxygen necessry for their combustion; for, according to him, the more a gas will consume, the more light it will afford. He has found, that oil and coal gas, produced under different circumstances, take different quantities of oxygen.

	Specific gravity.		Oxygen.
100 volumes of coal-gas of	345	took of	78
Ditto	500	—	166
Ditto	620	—	194
Ditto	630	—	196
Ditto	650	—	217
100 volumes of oil-gas of	464	—	116
Ditto	590	—	178
Ditto	758	—	220
Ditto	906	—	260

From the above tables it would, of course, be inferred, that the illuminating power of oil-gas, No. 4, is the greatest; that of coal-gas, No. 1, the least, these being to each other as 260 to 78; that is, as 3¼ to 1. From this, then, it appears, that the best oil-gas is to the worst coal-gas as 3¼ to 1; of course a very different conclusion with respect to their illuminating power would be drawn, were we to take an average from the above tables, by which we should diminish the light given out by the former, and increase that from the latter.

The gaseous matter, given off from coal and oil, now known by the name of coal and oil gas, contains nearly the same ingredients, but in different proportions. Dr. Henry has shown, that they are mixtures of hydrogen, carbonic oxide, carbureted hydrogen, and olefiant gas, with occasionally a little nitrogen; and, in addition to these, coal-gas, before it is subjected to the process of purification, always contains ammonia, carbonic acid, and sulphureted hydrogen; but from which it is, or at least ought to be, freed before it is sent into the gas-holder; so that both gases, when exposed for sale, contain the same ingredients, but in different proportions. There is also given off, during the decomposition of coal and oil, an essential oil, which seems to be held in solution, in a state of vapor, in the gas, and which is the cause of the smell, and, as some suppose, adds to the illuminating power.

Dr. Henry, in his paper in the Annals of Philosophy for September 1821, has given the component parts of different samples of gas. The coal-gas was prepared from Wigan Canal, at the manufactory of Messrs. Phillips and Lee, and collected from an opening in a pipe between the retort and the tar-pit, generally about half an hour after the commencement of the distillation, except in the instance of the gas No. 4, which was taken five hours, and, No. 5, ten hours from that period; the carbonic acid and sulphureted hydrogen being removed by washing it with solution of potassa.

Gas.	Spec. Grav.	Gas Condensable by Chlorine.
No. 1	650	13 per cent.
2	620	12
3	630	12
4	500	7
5	345	0

After the condensable gas was removed, there remained,

Gas.	Azote.	Carb. Hyd.	Carb. Ox.	Hydrog.	Total.
No. 1	1·5	94·5	4	0	100
2	6	82	2	10	100
3	2	66	14	18	100
4	5	60	12	23	100
5	10	20	10	60	100

In the following table, the oil-gas of the first three experiments was procured from whale-oil, previously boiled, to free it from water, the heat of the retort being in each succeeding experiment reduced till it was just sufficient to decompose it. The fourth gas was from a London work.

Gas.	Sp. Gr.	Lost by Chlorine.
No. 1	464	6 per cent.
2	590	19
3	758	22·5
4	906	38

After this there remained a gas composed of,

Gas.	Azote.	Carb. Hyd.	Carb. Ox.	Hydrog.	Total.
No. 1	7	30	15	48	100
2	5	40	15	40	100
3	5	65	20	10	100
4	5	75	15	5	100

The gas condensed by chlorine is supposed to be partly olefiant, and partly a volatile oil. That not condensed, the above tables show to vary in its composition. In the best specimen of oil-gas, the carbonic oxide is in larger proportion than in the best kinds of coal-gas; and the carbureted hydrogen is most abundant in the latter. The hydrogen in both appears to increase as the temperature at which they are formed becomes higher, and is always greatest in the last proportions.

It has been proposed in Holland to substitute turf for coal, or oil, as a material from which to obtain a gas for illumination. The experiments that have been made promise much success; and the apparatus required may be of far simpler

construction than those used in the distillation of coal. The products do not require that careful and elaborate process of purification which is necessary for the gas from coal. It is said also that the light is better. The light may be better than that from coal-gas badly made, or carelessly used; but it is not likely that, with equal precautions, the first should surpass, or even equal the latter. With reference to the arrangement of the pipes, by which gas is distributed for the purpose of illuminating cities, it may be proper to state that all gas mains laid in public streets should be placed at least eighteen inches below the surface of the ground, to secure them from being disturbed by carriages, or interfering with the paving of the street; they should be placed perfectly firm, so that they may not easily give way. The course of the pipes should be rectilinear, with a dip of about one inch in every ten feet distance.

In all wide streets, where the number of houses on both sides of the streets, to be supplied with gas, is numerous, it is more economical to employ a separate gas main for each side of the street, than to make use of one larger main for both sides; because smaller mains may then be employed, and the collateral branch pipes leading into the houses are shorter; these circumstances amply compensate for the additional main. All branch pipes proceeding from a main should have a dip of about one inch in ten feet, towards the main from which they proceed, so that any fluid that may happen to collect in these pipes must run into the mains. All small wrought-iron branch pipes proceeding from the mains into the houses, or places to be lighted with gas, should be covered with a thick coat of coal tar, before they are laid down into the ground; this may easily be done by heating the pipe, and laying on the boiled tar with a brush.

Every separate length of branch pipe should be tried by condensing the gas in the pipe under water, in order to be certain that it is sound. The junctures of these pipes should be made by dipping the male screw of the pipe into a mixture of white lead and linseed oil, before they are screwed together.

Notwithstanding the usual care which can be taken in proving pipes, before the gas is admitted into them, a slight leakage may be sometimes subsequently detected.

Therefore, before the gas is suffered to enter the mains, they should be again proved, in order to be certain that all the junctures are air-tight. The most convenient manner of proving the mains when laid, is by means of a small portable gas-holder filled with common air, and connected, by means of a small pipe, with the system of the mains, to be tried. This gas-holder should be made to act with a pressure at least four times greater than the pressure which the pipes will have to sustain by the gas they are to convey. If the mains are air-tight, the gas-holder will remain stationary; but, if they are not sound, the gas-holder will descend in proportion to the leak of the mains; the quantity of gas lost may be thus ascertained.

In order to guard against the danger of water entering from the external surface into the pipes, a reservoir should always be placed at the lowest point, where two or more descending mains meet and form an angle, so as to receive the water that may happen to collect at this angular point, an accumulation of which would cut off the communication between the two pipes: this reservoir is usually called a syphon. It ought to be at least twice the diameter of the bore of the mains, between which it is interposed, and four times that diameter in depth. These reservoirs afford the best indication to show the sound or leaky state of the system of the mains. In all instances, where the pipes are perfectly sound, observation has shown, that half a mile of gas-mains, three inches in the bore, does not deposit more than a quart of water in a year; on the other hand, if the mains are leaky, the water of the reservoir requires to be pumped out, sometimes as frequently as every fortnight; and, during wet weather, much oftener. The loss of gas by such leakage is much greater than is generally imagined. Instances might be mentioned where, in order to keep the common air out of a system of faulty pipes, a constant influx of gas, which a pipe two inches in diameter can supply, has been found necessary and this, of course, is just so much gas lost to the economy of the establishment.

With regard to the diameter of the mains, no general rule can be given. It must vary according to the number of branch-pipes and lamps which the main has to supply within a given distance,—the angular direction of the mains,—the pressure of the gas-holder,—and, above all, with the relative altitude of the place where the gas-holder is situated, and the place at which the gas is to be supplied, or where the lamps are placed. Indeed, this is one of the most important considerations with regard to the economical distribution of gas-mains; and, by attending to this circumstance, a prodigious saving may be effected.

In order that the pipes for conveying the gas from the mains, and distributing it through the houses or other buildings to be lighted with gas, may, in the first place, not be unnecessarily large, or too small, the following rule may serve as a guide to workmen:—

One gas-lamp, consuming four cubic feet of gas in an hour, if situated twenty feet distance from the main which supplies the gas, requires a tube not less than a quarter of an inch in the bore.

Two lamps, thirty feet distance from the main, require a tube three-eighths of an inch in the bore.

Three lamps, thirty feet distance from the main, require a tube three-eighths of an inch in the bore.

Four lamps, forty feet distance from the main, require a tube half an inch in the bore.

Six lamps, fifty feet distance from the main, require a tube five-eighths of an inch in the bore.

Ten lamps, 100 feet distance from the main, require a tube three-quarters of an inch in the bore.

Fifteen lamps, 130 feet distance from the main, require a tube one inch in the bore.

Twenty lamps, 150 feet distance from the main, require a tube 1¼ inch in the bore.

Twenty-five lamps, 180 feet distance from the main, require a tube 1⅜ of an inch in the bore.

Thirty lamps, 200 feet distance from the main, require a tube 1½ inch in the bore.

Thirty-five lamps, 250 feet distance from the main, require a tube of 1⅝ of an inch in the bore.

All copper pipes employed to convey gas through the interior of houses, should be of the following weight, with regard to a given length of the pipe:—

Bore of the Pipe. Parts of an Inch.	Weight per Foot. Ounces.
⅜	3
⅝	5
½	6
⅝	8
¾	10

Mr. Phipson, of Birmingham, in order to obviate the effects produced by the action of gases on copper or brass pipes, through which they pass, has adopted the plan of lining them with lead. A tube is formed of rolled copper, by drawing it through a plate, and the edges are soldered together, so as to form a safe joint, the superfluous solder is dressed off, and the tube again drawn; a piece of lead-pipe is then drawn through a plate on a mandrill, of the diameter of the tube required, and placed within the copper pipe; then, by passing through it a conical mandrill attached to a rod, the lead-pipe is forced against the inner surface of the copper tube, so as to leave them in perfect contact; or, sometimes a lead-pipe is prepared on a mandrill, of the diameter of the tube required, and a copper-pipe, already soldered, drawn over it; they are then passed both together on a mandrill through a draw-plate, so as to bring the two into complete contact. The lead-pipe is proof against the action of gas, and the copper-pipe, at the same time that it supports and defends it, makes a better appearance.

Four gasometers of 25,000 feet each have been erected on a new principle at Ashton-under-Lyne Gas-Works, and in practice it is found to answer very well; there are four iron pillars at the four points of each gasometer, with an endless chain fixed and made tight round the pillars and gasometer; the latter is attached on one side of the pillars only, by which means it rises and falls as other gasometers. On this principle they are not acted on by the wind, though exposed; and another great advantage is, they are much cheaper than those erected on the old principle.

The great improvements which have taken place, both in the manufacture of gas, and in the methods of applying it for the purposes of illumination, render it extremely probable that it will be much more extensively employed in lighting up private houses. Many persons object to introduce the gas directly into their apartments; and it has accordingly been proposed to bring the gas to the windows, to allow it to burn on the outside, and thus to illuminate the room without any of the annoyances which arise, both from the smell of the gas, and from the heat generated during its combustion.

In order to do this to the greatest advantage, the gas-pipe should be brought to the cill of the window, and should then have a gas-tight joint by means of which it can be placed either vertically, when it is to be used, or horizontally, when the apparatus is to be removed altogether, or put aside during the day in a press or recess made in the wall to receive it. The lamp which is to protect the gas from wind and rain, should have fronts of glass either hemispherical or semicylindrical, so that no opaque line or bar may interfere with or break the cone of rays which enters the window. The back part of the lamp must be a reflector, of such a surface that it will throw into the apartment all the rays that would otherwise not enter. The direct and reflected light which thus enter apartments, might be rendered uniform, by means of an ornamental blind of the finest muslin (varnished or not as may be found most advantageous); and, if the blind has a landscape upon it, the most luminous portion, or that nearest the gas flame, might be made to have the appearance of the sun in the heavens. In newly built houses, recesses might be constructed, in such a way that the lamp and gas-tube might turn round a joint, and be entirely concealed from view in the day-time.

The advantages of such a method of illumination are great and obvious. Instead of being annoyed by the constant entrance of servants to trim the lamp;—instead of having the furniture destroyed by the spilling of oil, and by the carbonaceous matter necessarily produced either by oil or wax burning within an apartment;—instead of having the temperature of over-heated rooms increased by the heat of the lights;—instead of having the eye injured by the irritation which arises from brilliant flame;—and instead of having the apartment illuminated by a light constantly varying in intensity, we shall avoid all these evils, and have our houses lighted in the very same manner as they are by the light of day. The disadvantages which attend this method are very few. They are prevented from excluding the cold air of winter by shutters and curtains; but in many cases this is an advantage, and, when it is not desirable, the heat on the outside of each window will diminish the currents of cold air which might otherwise be admitted. A greater quantity of light will no doubt be necessary to produce the same degree of illumination; but the cheapness of gas renders such an objection of no weight.

The application of inflammable gas to the purposes of illumination, has hitherto been almost wholly confined to the lighting of large cities, extensive manufactories, and public institutions. The ingenious apparatus invented by J. and P. Taylor, for obtaining gas from oil, has enabled gentlemen of fortune to light their houses with gas at a moderate expense, and without being annoyed by any of the disagreeable products which arise from the distillation of coal. But, notwithstanding this valuable improvement, gas-light has never been rendered generally portable, and the great body of private individuals, and all the lower classes of society, are unable to

derive any advantage from the extraordinary cheapness of this beautiful light.

In order to remove these limitations to the use of gas lights, and to render them available in nearly every case where lamps or candles can be used, Mr. Gordon conceived the idea of condensing a great quantity of gas into a small space, and set himself to construct a lamp in which this condensed gas could be burned with the same facility and security as an ordinary lamp. The body or reservoir of the lamp is commonly made of copper, about one-twentieth of an inch thick, in the form of a sphere or a cylinder with hemispherical ends. This reservoir may be put into a different apartment from that which is to be illuminated, or may be concealed under the table, or, when it is required to be ornamental, it may be put into a statue, or the pedestal of a statue, or may be suspended.

In order to regulate the escape of the condensed gas, Mr. Gordon has employed two different contrivances, which are extremely ingenious. The first of these is a stop-cock, constructed in the following manner :—After the cock has been drilled through, in the usual manner, the circular hole in the key is contracted at one side, by soldering into it two pieces of brass, which join at one side of the hole, and are about one-twentieth of an inch distant at the other side, forming an acute angular aperture. By this means the issue of gas can be regulated to the smallest possible stream, by bringing the acute angle of the opening in the key to communicate with the circular opening in the cock; and, as the expansibility diminishes as the gas is consumed, the aperture can be increased in the same proportion. But to secure the above object more completely, and to prevent the possibility of turning the cock suddenly, so as to admit too great a discharge of gas, a ratchet wheel is fixed in the end of the key of the cock, in which an endless screw works. By turning this screw with the nut, the flame may be enlarged or diminished to any extent, however highly condensed the gas may be.

The second contrivance which Mr. Gordon employs to produce the same effect, is a conical leather-valve, similar to that in the reservoir of an air-gun, placed in the opening of the reservoir of the lamp, where it screws on to the condensing pump. When the reservoir has been charged with gas, and removed from the pump, a brass instrument is screwed in above the valve. Through this piece of brass there passes a finger-screw, the point of which, when made to press on the valve, forces it back, and allows the gas to issue in any quantity that may be required. A bridge of brass, consisting of a hollow tube, in the form of a Gothic arch, passes over the head of this regulating screw, for the purpose of giving freedom to the fingers in turning the screw to regulate the flame, and to conduct the gas to the burner, which, in a standing lamp, is screwed on at the centre of the arch.

By either of these contrivances, the latter of which Mr. Gordon prefers from the simplicity of its construction, the command of the flame is so complete, that it may be reduced to an almost imperceptible quantity.

The forcing-pump by which Mr. Gordon condenses the gas is nearly the same as that of the common condensing syringe, having a solid piston worked by a lever, with shears and a guide to produce a vertical motion. As a considerable degree of heat is created during the condensation of the gas, the pump must be kept cool by surrounding it with a case filled with water, and changing the water as soon as it becomes heated.

When it is required to fill a great number of lamps with condensed gas, Mr. Gordon employs the steam engine to work the forcing pump, and the gas should be condensed into a large reservoir, from which the lamps of numerous individuals may be filled at once with the condensed gas. A mercurial gauge, similar to that used for ascertaining the force of condensed air, must be fixed to the large reservoir, for the purpose of enabling any person to see the degree of condensation to which the gas has been brought.

Although, at the first erection of gas works, the public feeling was strongly against them, on account of their supposed danger and offensive nature, this prejudice has gradually worn off. Though the danger of having large collections of gas has been rated at an enormous extent by Sir William Congreve, only one instance of the explosion of a gas-holder has happened; and this occurred in the first filling of one at Manchester, through ignorance, and the carelessness of the workmen. The atmospheric air, not having been extracted, was of course allowed to mix with the coal-gas; and one of the men, wishing to ascertain if the gas-holder was tight, applied a candle to a part, from which gas, mixed with atmospheric air, was issuing, which caused it to explode, and tear the gas-holder in pieces.

A few accidents have occurred, from the escape of gas from the pipes, but these have, in general, been produced by the carelessness of the workmen, and were of a trifling nature; for when the gas does escape, it is only when it gets into some confined place, as a vault, or a common sewer, that it can, on the approach of flame, do any mischief. Shops and apartments of a dwelling house are not close enough to keep the gas confined; but allowing them to be so, the quantity emitted is too trifling, compared to that of the air. Coal gas is most explosive when mixed with about five of air. In a room, then, of twelve feet each way, one burner, consuming five cubic feet per hour, would be sufficient to light it, but, in this apartment, there are 1728 feet, so that, to get an explosive mixture, and allowing there is no loss of gas, the burner must be left open upwards of fifty hours, or at least two days and nights, which is not likely to happen. When more lights are used, the apartments are of course larger, so that the same time would still be required. In those cases, also, in which the burners are left open, the odor of the gas gives warning of its escape; so that one of its properties, considered offensive, actually proves a valuable safe-guard.

GASCOIGNE (George), an English poet of some fame in the reign of queen Elizabeth. He was born in Essex, of an ancient family, and educated at Oxford and Cambridge. Thence he removed to Gray's Inn, but, having a genius too volatile for the law, he travelled, and for some

time served in the army in the Low Countries. He afterwards went to France, where be became enamoured of a Scottish lady, and married her. At length he returned to England, and settled once more in Gray's Inn, where he wrote most of his poems. The latter part of his life he spent in his native village of Walthamstow, where he lied in 1578. His plays, first printed separately, were afterwards reprinted with other poems, in 2 vols. 4to. in 1577 and 1587.

GASCOIGNE (Sir William), chief justice of the king's bench under Henry IV., a celebrated judge, who, being insulted, it is said, on the bench by the then prince of Wales, afterwards Henry V., with great coolness and intrepidity committed him to prison. It is not well authenticated that the prince struck Sir William, as represented by Shakspeare; but all authors agree that he interrupted the course of justice to screen a lewd servant. Sir William died in 1413. Several of his remarks and decisions are referred to in the law books.

GASCONADE, *n. s.* & *v. n.* From the Gascons, a people remarkable for boasting. A boast or bravado: to brag, or swagger.

Was it a *gasconade* to please me, that you said your fortune was increased to one hundred a-year since I left you? *Swift.*

GASCONADE, a river of North America, having a southern course into the Missouri, about 100 miles above its confluence with the Mississippi. It can be ascended from its mouth by boats about 100 miles, and is 157 yards wide and twenty feet deep where it enters the Missouri. On its banks are a number of salt-petre caves.

GASCONY, a ci-devant province of France, bounded by Guienne on the north, by Languedoc on the east, by the Pyrenees on the south, and by the Bay of Biscay on the west. It had its name from the Gascons, its ancient inhabitants. After these were subdued by the Franks, they had for some time dukes of their own, who were subject to the duke of Aquitaine; but both were at last dispossessed by the kings of France. It produces corn, wine, fruit, tobacco, hemp, brandy, prunes, &c.; and abundance of fine timber in the department of the Landes. Gascony is watered by the Garonne and Adour, besides smaller streams, and becomes hilly towards the south, the mountains containing mines and warm springs. Bourdeaux and Bayonne are the principal harbours, and the former is one of the best trading ports in France. The principal articles of export are wine, brandy, and vinegar; fruit, wool, linseed, pitch, cork, and wood: marble, iron, and coloring earths of all kinds, are also sent from the neighbourhood of the Pyrenees. Since the revolution Gascony forms the departments of the Upper Pyrenees, the Gers, the Landes, and part of those of the Lower Pyrenees, the Upper Garonne, and the Lot and Garonne. It is ascertained to have a territorial extent of 11,000 square miles.

GASH, *v. a.* & *n. s.* Fr. *hacher*, to cut; Belg. *gihash*. To make a wide and open wound; the wound so made.

He glancing on his helmet, made a large
And open *gash* therein; were not his targe,
That broke the violence of his intent,
The weary soul from thence it would discharge.
Spenser.

A perilous *gash*, a very limb lopt off.
Shakspeare.

Hamilton drove Newton almost to the end of the lists: But Newton on a sudden gave him such a *gash* on the leg, that therewith he fell to the ground.
Hayward.

Where the Englishmen at arms had been defeated, many of their horses were found grievously *gashed* or gored to death. *Id.*

But the ethereal substance closed,
Not long divisible; and from the *gash*
A stream of nectareous humour issuing flowed.
Milton.

Streaming with blood, all over *gashed* with wounds, He reeled, he groaned, and at the altar fell.
Philips.

See me *gashed* with knives,
Or seared with burning steel.
Rowe's Royal Conv.

I was fond of back-sword and cudgel play, and I now bear in my body many a black and blue *gash* and scar. *Arbuthnot.*

GAS'KINS. See GALLIGASKINS.

GASP, *n. s.* & *v. n.* Goth. *geisfd*; Dan. *gispe*, to sob; or probably from Sax. ȝeapan, to yawn. To open the mouth wide for inspiration whether convulsively or not; to breathe with difficulty; to desire anxiously; but this use is hardly to be justified, as not being analogous to nature.

His fortunes all lie speechless, and his name
Is at last *gasp*. *Shakspeare. Cymbeline.*

Ah, Warwick, Montague hath breathed his last;
And to the latest *gasp* cryed out for Warwick.
Shakspeare.

The rich countrymen in Austria were faint and *gasping* for breath. *Brown's Travels.*

The sick for air before the portal *gasp*.
Dryden.

They raised a feeble cry with trembling notes;
But the weak voice deceived their *gasping* throats.
Id.

The *gasping* head flies off; a purple flood
Flows from the trunk. *Dryden's Æneid.*

The ladies *gasped*, and scarcely could respire;
The breath they drew no longer air, but fire. *Dryden.*

A scantling of wit lay *gasping* for life, and groaning beneath a heap of rubbish. *Id.*

I lay me down to *gasp* my latest breath;
The wolves will get a breakfast by my death. *Id.*

He staggers round, his eyeballs roll in death,
And with short sobs he *gasps* away his breath.
Id. Æneid.

Pale and faint,
He *gasps* for breath; and, as his life flows from him,
Demands to see his friends. *Addison's Cato.*

If in the dreadful hour of death,
If at the latest *gasp* of breath,
When the cold damp bedews your brow,
You hope for mercy, shew it now. *Addison.*

The Castilian and his wife had the comfort to be under the same master, who, seeing how dearly they loved one another, and *gasped* after their liberty, demanded a most exorbitant price for their ransom.
Id. Spectator.

He now with pleasure views his *gasping* prize,
Gnash his sharp teeth and roll his blood-shot eyes.
Gay.

Parting day
Dies like the Dolphin, whom each pang imbues
With a new colour as it *gasps* away.
Byron. Childe Harold.

GASPAR STRAIT and ISLAND, a passage and island in the Eastern seas, between the east coast of the island of Banca, and the west coast of the island of Billiton. The island is high and conspicuous, about five miles long; and the strait, about fourteen leagues broad, is divided into two arms, and connects the China and Java seas.

GASPE, a district and county of Lower Canada, North America, on the south side of the St. Lawrence, which lies between 64° and 66° 30′ W. long., and between 47° 20′ and 49° 10′ N. lat. It is bounded on the west by the district of Quebec, on the east and north-east by the river and gulf of St. Lawrence, and on the south by the province of New Brunswick and the bay of Chaleurs. It sends one member to the provincial parliament; and is divided into two parts by a ridge of mountains, which run north-east. The tract on the northern declivity of these mountains to the St. Lawrence is rough and barren; being almost covered with impenetrable forests. The south-east side of the ridge is also uneven and rugged in many parts. In 1808 the population amounted to 3200, and between 300 and 400 fishermen. New Carlisle is the principal town.

GASPE, a bay of the above district, in the gulf of St. Lawrence, between Cape Gaspe and Whale Head. It runs about sixteen miles into the land, and is about five miles broad. Two other inlets, called the north-west and south-west arms, penetrate from the end of it a considerable way into the interior, and receive the waters of numerous streams from the mountains. This bay is deep and well sheltered; capable of affording protection to a large number of ships. The shores are lofty.

GASPE is also the name of a cape on the coast of Canada, in the gulf of St. Lawrence. Long. 64° 10′ W., lat 48° 35′ N.

GASSENDI (Peter), a celebrated philosopher of France, was born at Chantersier in Provence, in 1592. His parents sent him to school at Digne, where he soon made such extraordinary progress in learning, that some persons, who had seen specimens of his genius, removed him to Aix, to study philosophy under Fesay, a learned minor friar. He was afterwards invited to be professor of rhetoric at Digne, before he was quite sixteen years of age; and he had been engaged in that office but three years when, Fesay dying, he was made professor in his room at Aix. There he composed his Paradoxical Exercitations; which coming to the hands of Nicholas Peiresc, Gassendi was first made canon of the church of Digne and D. D., and then obtained the rectorship of the church. Gassendi's fondness for astronomy increased with his years; and, his reputation daily increasing, he was, in 1645, appointed royal professor of mathematics at Paris. This institution being chiefly designed for astronomy, he read lectures on that science to crowded audiences. He, however, did not hold this place long; for a dangerous cough, and inflammation of the lungs, obliged him, in 1647, to return to Digne for the benefit of his native air. Gassendi combated the metaphysics of Descartes; and divided with that great man the philosophers of his time, almost all of whom were Cartesians or Gassendians. He left nine volumes of his philosophical works. 1. Three on Epicurus's Philosophy, and six which contained his own. 2. Astronomical Works. 3. The Lives of Nicholas de Peiresc, Epicurus, Copernicus, Tycho Brahe, Puerbachius, and Regiomontanus. 4. Epistles, and other treatises. All his works were collected together, and printed at Lyons, in 1658, in 6 vols. folio. He died at Paris, in 1655, aged sixty-three.

GASSICOURT (Charles Louis Cadet de) a modern French philosopher, and advocate, who had the singular good fortune to survive the whole of the revolution, was the son of an apothecary of Paris. M. Gassicourt first attracted notice by a pamphlet, published in 1797, on the Theory of Elections. Then followed other essays on political and miscellaneous subjects, among which was one On the Private Life of Mirabeau; St. Geran, a Critique on the New Modes of Thinking, Writing, and Speaking, introduced into France by the Changes of the Times; and others on the Influence of the Masonic Societies in the Process of the Revolution; and the Four Ages of the National Guard. About the same period appeared a volume of Travels in Normandy, and a Dramatic Sketch, pourtraying the principal characters who flourished under Louis XIV. and his successor, entitled The Supper of Moliere. On the death of his father, himself a man of scientific pursuits and the personal friend of Buffon, Lalande, and Condorcet, he seems to have diverted his attention from politics to the study of chemistry and physics. He edited his father's treatise on Domestic Pharmacy, and a Formulary on the same subject; and gave the world a New Dictionary of Chemistry, afterwards introduced into the Polytechnic school. This book appeared first in 1803. He followed the French army into Austria in 1809, and subsequently wrote an account of the Campaign, during which he invented a military instrument called les baquettes. The modern plan for the organisation of the French board of health owes its origin to him, and he had not only the satisfaction of seeing it eagerly adopted, but that of obtaining the appointment of Reporting Secretary. In this capacity he continued till his death, which took place at Paris in the summer of 1823. Besides the productions enumerated, Gassicourt was the author of a series of epistles on London and the English Nation; and a treatise on the application of the Physical Science to Military Purposes. He was also a material contributor to a variety of useful and scientific publications; and assisted in founding the Lyceum, afterwards the Athenæum, at Paris.

GAST, Sax. ȝarr. Vide *aghast*. To terrify.

> When he saw my best alarmed spirits
> Bold in the quarrel's right, roused to the encounter,
> Or whether *gasted* by the noise I made,
> Full suddenly he fled. *Shakspeare. King Lear.*

GASTEROSTEUS, the stickleback, in ichthyology, a genus of fishes belonging to the order of thoracici. There are three rays in the membrane of the gills: the body is carinated; and there are some distinct prickles before the back fin. There are thirteen species, distinguished by thenumber of prickles on the back. One of these,

G. aculeatus, stickleback, bansticle, or sharpling, is common in many of the British rivers. In the fens of Lincolnshire, and some rivers that proceed from them, they are found in prodigious quantities. At Spalding, once in seven or eight years, amazing shoals appear in the Welland, and come up the river in form of a vast column. They are supposed to be the multitudes that have been washed out of the fens by the floods of several years, and collected in some deep place, till, overcharged with numbers, they are periodically obliged to attempt a change of place. The quantity is so great that they are used to manure the land, and trials have been made to get oil from them. An idea may be conceived of this vast shoal, by being told that a man, having been employed by a farmer to take them, once obtained for a considerable time 4*s*. a day, by selling them for a halfpenny per bushel. This species is seldom two inches long: it has three sharp spines upon the back, that can be raised or depressed at pleasure. The color of the back and sides is an olive green; the belly white; but in some the lower jaws and belly are of a bright crimson.

GASTRELL (Francis), bishop of Chester, was born in 1662, appointed preacher to the society of Lincoln's Inn in 1694, and made bishop of Chester in 1714. He preached a course of sermons for Boyle's lectures; engaged in the Trinitarian controversy with Mr. Collins and Dr. Clarke; and published two popular pieces entitled Christian Institutes, and A Moral Proof of a Future State. He also vindicated the rights of the university of Oxford against the archbishop of Canterbury, in the appointment of the warden of Manchester College; and opposed the violent proceedings against bishop Atterbury in the house of lords, though he disliked the bishop's principles. He died in 1725.

GASTRIC, *adj.* } The root of all these
GASTRO'RAPHIA, *n. s.* { words is the Gr. γαστηρ,
GASTROT'OMY, *n. s.* { the belly. It is used
GASTRON'OMY, *n. s.* } in composition with ραπτω, to sow up; τεμνω, to cut, and νομος, a law or rule, and in these cases refers to sewing wounds, making incisions, or laying down laws in reference to the stomach or belly.

The *gastric* juice of an owl, falcon, or kite, will not touch grain. *Palcy's Theology.*

GASTRIC JUICE, a thin pellucid liquor, which distils from certain glands in the stomach, for the dilution, &c., of the food.

It is soluble in water, has a slight saline taste, and is quite limpid. Its peculiar property is that of dissolving the food in the stomach into a milky liquid called chyle. After death this solvent power even acts upon the stomach itself. By evaporation it is reduced to a dry mass, which gives out in destructive distillation ammonia and empyreumatic oil, leaving carbonaceous matter, which contains muriate of soda and other neutral salts.

GASTROMANCY, GASTROMANTIA, from γαστηρ, the belly, and μαντεια, divination, a kind of divination practised among the ancients, by means of words coming, or seeming to come, out of the belly. There is another kind of gastromancy, which is performed by means of glasses, or other round transparent vessels, within which certain figures appear by magic art. It is thus called, because the figure appears as in the belly of the vessels.

GASTUNI, a town of Greece, in the Morea, over against the island of Zante. It has a castle on the Igliaco, and contains 3000 inhabitants, who cultivate the vine, cotton, and silk, with great industry. The environs are very fertile. About six miles to the east are found the ruins of the ancient Elis. Twelve miles east of Chiarenza.

GAT, the preterite of get.

Moses *gat* him up into the mount.
Ex. xxiv. 13.

GAT, EAST, a channel W. N. W. of the island of Walcheren, Netherlands, between the Caloot Sand and the Querns Flat. It has from four to five fathoms water.

GATA, CAPE, a promontory on the coast of Granada, Spain, forming the eastern limit of the bay of Almeria, and consisting of a mass of rocks, twenty-four miles in circuit, and thirteen in breadth. In the centre of this promontory there are four hills, called the Sacristan, the Two Friars, the Captain, and the White Mountain; and, about fifty paces from the beach, a rocky mass 200 feet high, crystallised in pieces that have four or five plates chased one within another. They are of the color of ashes, from eight to fourteen inches long, with a large grain that takes a good polish. The other side of the promontory, is called El Puerto de la Plata. Long 2° 22′ W., lat. 36° 43′ N.

GATAKER (Thomas), a learned critic and divine, born in London, in 1574. He studied at St. John's College, Cambridge, and was afterwards chosen preacher at Lincoln's Inn; which he quitted, in 1611, for the rectory of Rotherhithe. In 1620 he made a tour through the Low Countries; and, in 1624, published in London a work, entitled Transubstantiation declared by the confession of the Popish Writers to have no necessary foundation in God's Word. He wrote also a defence of this discourse. In 1642 he was appointed one of the assembly of divines, and was engaged with them in writing annotations upon the Bible. He died in July, 1654, in the eightieth year of his age. He published also, 1. A Dissertation upon the Style of the New Testament. 2. De Nomine Tetragrammata. 3. De Dipthongis, sive Bivocalibus. 4. An Edition and Translation of Marcus Antoninus's Meditations. 5. A Collection of Sermons, in folio; and many other works.

GATE, *n. s.* } Gate and way; Sax. ȝeat.
GATEWAY, *n. s.* } A frame of timber or other material upon hinges giving access to a city, castle, dwelling or field: also an avenue or opening itself.

That other *gate* was kept by Shame,
Whiche opened, as it was couthe
Towardes the parté of the southe.
Chaucer. Romaunt of the Rose.

She then the cities sought from *gate* to *gate*,
And everie one did aske, did he him see.
Spenser. Faerie Queene.

Auria had done nothing but wisely and politically, in setting the Venetians together by the ears with the Turks, and opening a *gate* for a long war. *Knolles.*

Knowest thou the way to Dover?
—Both stile and *gate*, horseway, and footpath.
Shakspeare.

Open the *gate* of mercy, gracious God!
My soul flies through these wounds to seek thee. *Id.*

Gateways between inclosures are so miry, that they cannot cart between one field and another.
Mortimer's Husbandry.

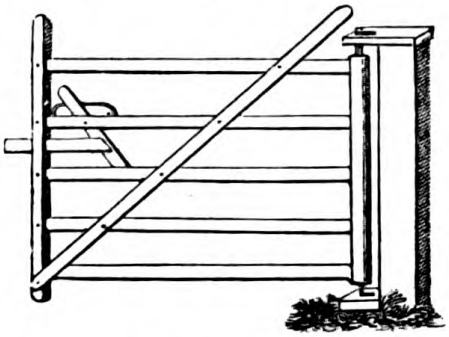
He feeds yon almshouse, neat but void of state,
Where age and want sit smiling at the *gate*. *Pope.*

GATES, in agriculture, are the convenient moveable parts of fences, generally formed of timber or iron, which are designed to give the freest inlet or outlet to enclosures, and at the same time to keep in cattle and admit of being securely closed

The great object is generally said to be to combine strength with lightness in their construction. The common sort are constructed of timber, and, whatever kind may be used, it is essential that it be well seasoned, as without attention in this respect they are soon warped in their structure by the heat of the sun: they should also be well and correctly put together. Oak is undoubtedly the best sort of wood for the purpose, where durability is the object; though some of the lighter kind of woods, as deal, willow, &c., will often last a great length of time, and from their lightness they are not so apt to destroy themselves. The lighter gates are made towards the head or opening part, the better, provided they be sufficiently strong for the purpose they are to serve; and, on this account, the top bars may in many cases, as where horses are to be kept, be left considerably stronger than the others. If this be not done, they are liable to be broken by the animals rubbing their necks upon them, except where they are made very high. Gates are generally made eight and a half or nine feet in width, and from five to six feet in height; the bars being three or four feet broad, and five or six in number. To prevent small animals getting through, a smaller bar is sometimes introduced between the two lowermost ones. At the ordinary prices of wrought iron and oak, the former will be found of doubtful economy, and cast iron gates are too heavy, and too liable to be broken, for agricultural purposes, but they are frequently used for ornamental gates, to divide pastures.

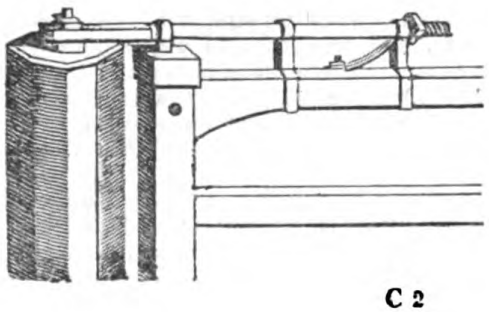
The posts to which gates are attached should, in all convenient cases, says Mr. Loudon, be formed of stone; as this material, when hewn and properly constructed, will last for ages. When formed of wood, oak or larch are the best sorts. The latter, where suitable, should be used without removing the bark, which has been found to add greatly to their durability. In some places it is customary to plant trees for gate-posts, and, after they have attained a certain size and thickness, to cut them over about ten feet above the surface: where the trees thrive, they form the most durable of all gate-posts; in many instances, however, they misgive, and much trouble is necessary to repair the defect. Where the posts are made of dead timber, they should always be strong, and the wood well prepared; that part which is let into the earth should also be defended, by dipping it in coarse oil, or giving it a coat of pyrolignous liquor; and all that is above ground exposed to the action of the weather should be well covered with one or two good coats of oil-paint. The expense of this preparation is but trifling, while the benefit is very great.

According to Parker, the substance of a gate-post should be from eight to ten inches square, or, for very heavy gates, a foot square would not be too large. If made of still larger size it is better. And he says, that the steadiness of a gate-post depends, in a great measure, upon the depth to which it is set in the ground, which ought to be nearly equal to the height of it. Five or six feet is, in general, fully sufficient. But the posts may be kept in their places by a strong frame-work placed under the ground, extending between the posts.

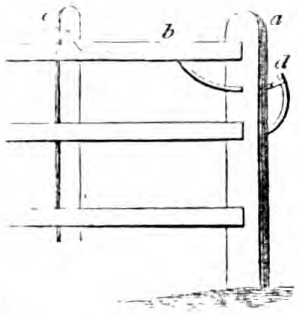


The common slip-bar gate is, perhaps, the most durable of any, especially where the gate-posts are of stone, with proper openings for the reception of the bars. The only objection is the trouble of opening and shutting this gate; which, when servants or others are passing through it in a hurry, occasions its being frequently left open. In other respects it is preferable to every other description of gate, says the above writer, both in the original cost and greater durability. It is to be noticed, however, that upon the verge of a farm or estate, especially where it is bounded by a high road, the slip-bar gate will not answer, as it does not admit of being locked, or secured in the same way as other gates. But the chained slip-bar gate, though more expensive, is not liable to this objection. Here the bars are connected by a chain down the middle of the gate, and therefore, if one bar is padlocked to the post, none of them can be moved till that one is unlocked.

Parker's compensation-hinge for gates is much in use, and forms an excellent corrective to their falling; all that is necessary when the gate sinks at the head is to screw it up by the nut *n*, till it regains its original position.



A gate should have one fall to the hanging post to make it catch, and another to a point at a right angle with the gateway, so as to keep it open. To effect this, having set the post perpendicular, let a plumb-line be drawn upon it: on this line, at a proper height, place the hook, so that it may project three inches and a half from the face of the post; and at a convenient distance below this place the lower hook an inch and a half to one side of the perpendicular line, and projecting two inches from the face of the post; then place the top loop, or eye, two inches from the face of the hanging stile, and the bottom loop three inches and a half. A gate thus hung will have a tendency to shut in every position; because if the weight of the gate be represented by a diagonal line from the heel to the head, this, by the resolution of forces, is resolvable into other two lines, one perpendicular, and the other horizontal; the former representing that part of the weight which presses in a perpendicular position, and the latter that part of the weight which presses in a horizontal direction, and gives the gate a tendency to shut.

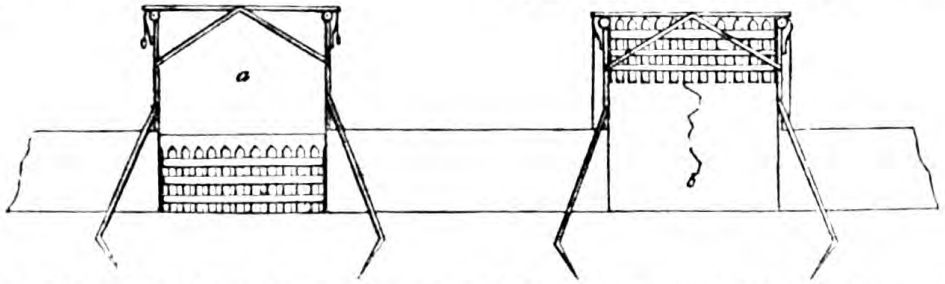


The fastenings of gates, it is observed by Parker, are as various as the blacksmiths who construct them the subject occupied his attention in connexion with the hanging of gates, and he has introduced various improvements. One of the most secure is a spring latch *a*, opened by a lever *b*, which works in a groove of the upper bar of the gate, and therefore cannot be rubbed open by cattle; while, by means of a knob at the end of the lever, and rising up against the top of the upright bar *c*, so that cattle cannot touch it, it is very easily opened by persons on horseback with or without a stick or whip.

A cheap, simple, and effective spring-latch consists of a bolt which is loose, and plays freely in two mortised openings in the upright bars, and is kept in place by a spring. The gate may be shut from either side, when the bar, striking against the projection on the falling post is pushed back, till, arriving at the mortise, the spring forces it in, and the gate is shut securely. Such a gate is easily opened by a rider. This is a good latch for the common field-gates of a farm.

Double, or folding gates, are sometimes considered to be much more durable than those of the swing kind; because the bars, being only half the length, render the joints of the gate not so liable to be broken, or the hinges to be so much strained. On the other hand, such gates require more opening and shutting, and the latter operation is troublesome to perform, when both halves have fallen at all from the perpendicular. These gates are not, therefore, in such general use in agriculture, as the swing kind; but are common only as gates to parks, &c.

Clarke's window-sash gate is the last invention we shall notice. It is suspended by two weights, and opens and shuts exactly on the principle of a window-sash. The weights may be of stone or cast iron; the pulleys are of iron, and nine inches diameter. It was applied in the first instance to a cattle-court; but has since been erected in different situations. Its advantages the inventor states to be the following:—It is easy to open *b*, or shut *a*; remains in whatever situation it is placed; is not liable to be beaten to pieces by the action of the wind; shuts always perfectly close, whatever be the height of the straw or dung in the court or gateway; a cart may be driven quite close on either side before opening; is perfectly out of the way when fully open, and not liable to shut on what is passing; the gate bottom not liable to decay by being immersed in the dung, as is commonly the case with cattle court-gates; not liable to go out of order; may be erected in a hollow place, where a swinging-gate could not open either outwardly or inwardly; and is likely to be more durable than ordinary gates. See diagram.



GATES, in a military sense, are made of strong planks, with iron bars, to oppose an enemy. They are generally made in the middle of the curtain, whence they are seen and defended by the two flanks of the bastions. They should be covered with a good ravelin, that they may not be seen or enfiladed by the enemy. These gates, belonging to a fortified place, are passages through the rampart, which may be shut and opened by means of doors and a portcullis. They are either private or public.

Private Gates are those passages by which the troops can go out of the town unseen by the enemy, when they pass to and from the relief of the duty in the outworks, or on any other occasion which is to be concealed from the besiegers.

Public Gates are those passages, through the middle of such curtains, to which the great roads of public ways lead. The dimensions of these are usually about thirteen or fourteen feet high, and nine or ten feet wide, continued through the rampart, with proper recesses for foot passengers to stand in, out of the way of wheel carriages.

GATESHEAD, a town of Durham, separated from Newcastle, by the Tyne; over which there is a fine stone bridge, which formerly had an iron gate in the middle, with the arms of Durham on one side, and those of Newcastle on the other; being the boundary between the bishopric and Northumberland. It is a borough by prescription, but not privileged to send members to parliament. Here are considerable manufactories of cast and wrought iron, whiting, &c. The church is a fine building, with a very high tower; and in the church-yard are several ancient monuments. There are few traces left of its ancient monastery, except a stone gateway, of rather a modern erection. The house covered two acres and a half of land. Here is a free school for grammar, arithmetic, and navigation. Gateshead Fell, a bleak and elevated ridge, extending southward from the town, is famous for its grindstone quarries, whence the Newcastle stones are exported to all parts of the world. The view of Newcastle and the Tyne from the hill on the north of the Hexham road is uncommonly grand. Gateshead is thirteen miles north-east of Durham.

GATEVEIN, *n. s.* Gate and vein. The vein otherwise called vena porta.

Being a king that loved wealth, he could not endure to have trade sick, nor any obstruction to continue in the *gatevein* which disperseth that blood.
Bacon's Henry VII.

GATH, or GETH, in ancient geography, a city of the Philistines, and one of their five satrapies. It is famous for having given birth to Goliath. David made a conquest of it, and it continued subject to his successors, till the declension of the kingdom of Judah. Rehoboam rebuilt and fortified it; king Uzziah retook it, and Hezekiah once more reduced it under his subjection. Some authors, among whom is F. Calmet, have committed an egregious mistake in making Gath the most southern, and Ekron the most northern, of the Philistine cities; as if these had been the two boundaries of their dominions, whereas they are not above five miles asunder; and Gaza is the last of the five satrapies south. Josephus expresses himself plainly enough, when he says, that Hezekiah took all the Philistine cities from Gaza to Gath; there being many more cities of that name, which signifies in the Hebrew a wine-press. Several more of the name of Geth or Gath are mentioned in Eusebius and St. Jerome, whose situation, according to them, plainly shows them to have been different places from this, and from each other; besides those which had an adjunct to distinguish them. This city recovered its liberty and lustre in the time of the prophets Amos and Micah, but was afterwards demolished by Hazael, king of Syria; since which it became of but little consideration till the time of the crusades, when Fulk king of Jerusalem built a castle on its ruins. It was thirty-two miles west of Jerusalem.

GATH'ER, *v. a.*, *v. n.*, & *n. s.* } Saxon,
GATHERER, *n. s.* } gaðepan.
GATHERING, *n. s* } According

to some authors contracted from get here; but the Belgic has *gaderen*, *gader*; Teut. *gadern*; and the Scotch, *gadeer*, of the same signification; and more probably compounded as the Goth. *gadra*, of *gawidra*, go and with. To collect, and form into a whole, as an act of necessity or convenience; and, according to this definition, applicable to objects and subjects, as thus separately illustrated: persons who are thus occupied.

Gather stones—and they took stones and made an heap. *Genesis.*

The seventh year we shall not sow, nor *gather* in our increase. *Lev.* xxv. 20.

Let every one lay by him in store, that there be no *gathering* when I come. 1 *Cor.* xvi. 2.

The luckless lucky maid
A long time with that savage people staid,
To *gather* breath in many miseries. *Spenser.*

Eftsoones he 'gan to *gather* up around
His weapons, which lay scattered all abrode,
And as it fell his steed he ready found,
On whom remounting, fiercely forth he rode
Like sparkes of fire that from the andvile glode.
Spenser's Faerie Queene.

That which, out of the law of reason or of God, men probably *gathering* to be expedient, they make it law. *Hooke.*

His opinions
Have satisfied the king for his divorce,
Gathered from all the famous colleges. *Shakspeare*

The reason that I *gather* he is mad,
Is a mad tale he told to day at dinner,
Of his own door being shut against his entrance.
Id.

All the way we went there were *gathered* some people on both sides, standing in a row. *Bacon.*

Their snow-ball did not *gather* as it went; for the people came in to them. *Id. Henry VII.*

I will spend this preface about those from whom I have *gathered* my knowledge; for I am but a *gatherer* and disposer of other men's stuff. *Wotton.*

Nor in that land
Do poisonous herbs deceive the *gatherer's* hand.
May's Virgil.

And if the night
Have *gathered* aught of evil, or concealed,
Disperse it, as now light dispels the dark. *Milton.*

Returned
By night, and listening where the hapless pair
Sat in their sad discourse, and various plaint,
Thence *gathered* his own doom. *Milton's Paradise Lost.*

Mademoiselle de Scudery, who is as old as Sibyl, is translating Chaucer into French: from which I *gather* that he has formerly been translated into the old Provencal. *Dryden.*

When the rival winds their quarrel try,
South, East, and West, on airy coursers born,
The whirlwind *gathers*, and the woods are torn. *Id.*

He *gathers* ground upon her in the chace;
Now breathes upon her hair with nearer pace. *Id.*

What have I done?
To see my youth, my beauty, and my love
No sooner gained, but slighted and betrayed;
And like a rose just *gathered* from the stalk,
But only smelt, and cheaply thrown aside,
To wither on the ground! *Id. Spanish Fryar.*

To pay the creditor, that lent him his rent, he must *gather* up money by degrees. *Locke.*

Think on the storm that *gathers* o'er your head,
And threatens every hour to burst upon it. *Addison.*

Immortal Tully shone,
The Roman rostra decked the consul's throne;
Gathering his flowing robe he seemed to stand,
In act to speak, and graceful stretched his hand.
Pope.

And *gathering* loiterers on the land discern,
Her boat descending from the latticed stern.
Byron. Corsair.

GATINOIS, or GASTINOIS, a ci-devant province of France, forty-five miles long and thirty

broad. In the eleventh century it had counts of its own, but was afterwards joined to Anjou. It was next divided into Gatinois, Orleanois, and François; and now forms part of the departments of the Seine and Marne, Seine and Oise, and Loiret. This district has been long celebrated for its saffron.

GA'TTEN-TREE, *n. s.* A species of Cornelian cherry.

GATTON, a small borough of Surrey, nineteen miles from London, on the side of a hill on the road to Ryegate. It is supposed to have been known to the Romans, from their coins and other antiquities found here. It is a borough by prescription; and has sent members to parliament ever since the 29th of Henry VI. It was formerly a large town. The members are returned by its constable, who is annually chosen at the lord of the manor's court.

GAUBIL (Anthony), a French author, born at Caillac in 1708. He was sent a missionary to China, and acted as interpreter at the court of Pekin. He published a history of Jengis Khan, and a translation of the Chou King. He died in 1759.

GAUBIUS (Hieronymus David), a celebrated physician of Holland. He studied under the illustrious Boerhaave; and became so much his favorite, that he resigned the chemical chair in his favor. He taught at Leyden with great applause for forty years. His reputation was extended all over Europe by several valuable publications, particularly by his Institutiones Pathalogiæ Medicinalis, and his Adversaria, which contributed not a little to the improvement of medicine. He died at Leyden, Nov. 20th, aged seventy-six.

GAUDE, *n. s.* & *v. a.* / GAU'DERY, *n. s.* / GAU'DILY, *adv.* / GAU'DY, *adj.*, & *n. s.* / GAU'DINESS, *n. s.* } Lat. *gaudere*, to be glad.—Minsheu. Expressive of what gives pleasure; whether to the eye, as splendid colors; to the taste, as a luxurious feast; or to the heart, as good news, &c.: of the pleasure itself, or the agents and mode of its communication.

By this *gaude*, have I wonnen, yere by yere
An hundred mark, sin I was Pardonere.
Chaucer. The Pardoneres Tale.

Of smale corall, aboute hire arm, she bare
A pair of bedes *gauded* all with grene.
Id. Prologue to Canterbury Tales.

He stole the' impression of her fantasy,
With bracelets of thy hair, rings, *gaudes*, conceits,
Knacks, trifles, nosegays, sweetmeats. *Shakspeare.*

The sun is in the heaven, and the proud day,
Attended with the pleasures of the world,
Is all too wanton, and too full of *gaudes*,
To give me audience. *Id. King Lear.*

My love to Hermia
Is melted as the snow; seems to me now
As the remembrance of an idle *gaude*,
Which in my childhood I did doat upon. *Shakspeare.*

Costly thy habit as thy purse can buy,
But not exprest in fancy; rich, not *gaudy*,
For the apparel oft proclaims the man. *Id.*

Go to a gossip's feast, and *gaude* with me,
After so long grief such nativity. *Id.*

Fancies fond with *gaudy* shapes possess,
As thick and numberless
As the gay motes that people the sun-beams. *Milton.*

A gold-finch there I saw, with *gaudy* pride
Of painted plumes, that hopped from side to side.
Dryden.

A plain suit, since we can make but one,
Is better than to be by tarnished *gau'dry* known.
Id.

Some bound for Guiney, golden sand to find,
Bore all the *gaudes* the simple natives wear;
Some for the pride of Turkish courts designed,
For folded turbants finest Holland bear. *Id.*

Age, which is but one remove from death, and should have nothing about us but what looks like a decent preparation for it, scarce ever appears, of late, but in the high mode, the flaunting garb, and utmost *gaudery* of youth, with clothes as ridiculously, and as much in the fashion, as the person that wears them is usually grown out of it. *South.*

He may surely be content with a fast to-day, that is sure of a *gaudy* to-morrow. *Cheyne.*

A man who walks directly to his journey's end will arrive thither much sooner than he who wanders aside to gaze at every thing, or to gather every *gaudy* flower. *Watts.*

In costly sheen and *gaudy* cloak arrayed,
But all afoot, the light-limbed Matadore
Stands in the centre, eager to invade
The lord of lowing herds. *Byron. Childe Harold.*

GAUDEN (Dr. Joseph), son of the Rev. John Gauden, vicar of Mayfield, in Essex, was born at Mayfield in 1605. At the commencement of the civil war, he was chaplain to Robert, earl of Warwick; whom he followed, on his taking part with the parliament against the king. Upon the establishment of the Presbyterian church government he complied with the ruling powers, and was nominated one of the assembly of divines who met at Westminster in 1643, and took the covenant; yet, having offered some objections to it, his name was afterwards struck out of the list. Nor did he espouse the cause of the parliament longer than they adhered to their first avowed principles of reforming only, instead of destroying, monarchy and episcopacy. In this spirit he signed the protestation to the army against the violent proceedings that affected the life of the king: and a few days after his execution published the famous Εικων Βασιλικη, A Portraiture of his Sacred Majesty in his Solitude and Sufferings: which ran through fifty editions in the course of a year. Upon the return of Charles II. he was promoted to the see of Exeter; and in 1662 removed to Worcester, where he died the same year. He wrote many controversial pieces, and has generally been considered as the author of the Eikon Basilike. After the bishop's death, his widow, in a letter to one of her sons, calls it The Jewel; and said her husband had hoped to make a fortune by it. This assertion, as the earl of Clarendon had predicted, was eagerly espoused by the anti-royalists, in the view of disparaging Charles I. But it has been said, that Gauden had too luxuriant an imagination to be able to compose in so chaste but elevated a style; and thence, as bishop Burnet and others argue, that not he, but the king himself, was the true author. The whole of the arguments on each side of this disputed question may be found in Mr. Nichols's Literary Anecdotes.

GAUDENS (St.), a town of France, in the department of Upper Garonne, and late province of Languedoc, seated on the Garonne; eight miles north-east of Bertrand.

GAVE. The preterite of give.

Thou can'st not every day give me thy heart;
If thou can'st give it, then thou never *gav'st* it:
Love's riddles are, that though thy heart depart,
It stays at home, and thou with losing sav'st it.
Donne.

GA'VEL, *n. s.* A provincial word for ground.

Let it lie upon the ground or *gavel* eight or ten times. *Mortimer.*

GAVELET, in law, an ancient and special cessavit used in Kent, where the custom of gavelkind continues, by which the tenant, if he withdraws his rent and services due to the lord, forfeits his land and tenements. The process is thus:—The lord is first to seek by the steward of his court, from three weeks to three weeks, to find some distress upon the tenement, till the fourth court; and if at this time he find none, at this fourth court it is awarded, that he take the tenement in his hand in name of a distress, and keep it a year and a day without manuring; within which time, if the tenant pays his arrears, and makes reasonable amends for the with-holding, he shall have and enjoy his tenement as before: if he comes not before the year and day be past, the lord is to go to the next county court with witnesses of what had passed at his own court, and pronounce there his process, to have further witnesses; and then, by the award of his own court, he shall enter and manure the tenement as his own: so that if the tenant desired afterwards to have and hold it as before, he must agree with the lord; according to this old saying: 'Has he not since any thing given, or any thing paid, then let him pay five pound for his were, ere he become healder again.' Other copies have the first part with some variation: 'Let him nine times pay, and nine times repay.

GAVELET is also a writ used in the hustings, given to lords of rents in London. Here the parties, tenant and demandant, appear by scire facias, to show cause why the one should not have his tenement again on payment of his rent, or the other recover the lands on default thereof.

GAVELKIND. A term in law. A custom whereby the lands of the father are equally divided, at his death, amongst all his sons; or the land of the brother equally among the brothers, if he have no issue of his own. This custom prevails in divers places in England, but especially in Kent.

Among other Welsh customs he abolished that of *gavelkind*, whereby the heirs female were utterly excluded, and the bastards did inherit as well as the legitimate, which is the very Irish *gavelkind*.
Davies on Ireland.

GAVELKIND is a tenure belonging to lands in the county of Kent, and formerly universal in Ireland. The word is said by Lambard to be compounded of three Saxon words, gyf, eal, kyn, 'omnibus cognatione proximis data.' Verstegan calls it gavelkind, quasi 'give all kind,' that is, to each child his part: and Taylor, in his history of gavelkind, derives it from the British gavel, i.e. a hold or tenure, and cenned, 'generatio aut familia;' and so gavel cenned might signify tenura generationis. It is well known what struggles the Kentish men made to preserve their ancient liberties, and with how much success those struggles were attended. And as it is principally here that we meet with the custom of gavelkind (though it was and is to be found in some other parts of the kingdom), we may conclude, that this was a part of those liberties; agreeably to Selden's opinion, that gavelkind, before the Norman conquest, was the general custom of the realm. The distinguishing properties of this tenure are principally these:—1. The tenant is of age sufficient to alienate his estate by feoffment, at the age of fifteen. 2. The estate does not escheat in case of an attainder and execution for felony; their maxim being, 'the father to the bough, the son to the plough.' 3. In most places he had a power of devising lands by will, before the statute for that purpose was made. 4. The lands descend, not to the eldest, youngest, or any one son only, but to all the sons together; which was indeed anciently the most usual course of descent all over England, though in particular places particular customs prevailed; and it must be allowed, that it is founded on strict justice, however contrary to the present general practice.

GAUGAMELA, in ancient geography, a village of Aturia, lying between the rivers Lycus and Tigris; famous for Alexander's victory over Darius. It is said to have been allowed to Darius Hystaspis for the maintenance of a camel; and hence the name. It was near a more considerable place called Arbela; whence the latter gave the name to the victory. See ARBELA.

GAUGE, *v. a.* & *n. s.* } French, *gauge*. See
GAUGER, *n. s.* } GAGE. A measure, or standard. He who gauges; an exciseman.

Those earls and dukes have been privileged with royal jurisdiction; and appointed their special officers, as sheriff, admiral, *gauger*, and escheator.
Carew on Cornwall.

If money were to be hired, as land is, or to be had from the owner himself, it might then be had at the market rate, which would be a constant *gauge* of your trade and wealth. *Locke.*

There is nothing more perfectly admirable in itself than that artful manner in Homer, of taking measure or *gauging* his heroes by each other, and thereby elevating the character of one person by the opposition of it to some other he is made to excel. *Pope.*

GAUGE. See GAGE.

A GAUGER is a king's officer, who is appointed to examine all tuns, pipes, hogsheads, and barrels, of wine, beer, ale, oil, honey, &c., and give them a mark of allowance, before they are sold in any place within the extent of his office.

GAUGING. See GEOMETRY.

GAUGING ROD, an instrument used in gauging or measuring the contents of any vessel.

GAUL. See GALLIA.

GAULTHERIA, in botany, a genus of the monogynia order, and decandria class of plants; natural order eighteenth, bicornes: CAL. exterior diphyllous, interior quinquefid: COR. ovate; the nectarium consists of ten subulated points: CAPS. quinquelocular, covered with the interior calyx formed in the shape of a berry. Species one only, a beautiful Canadian shrub.

GAULTIER (Louis), abbé, was a native of Italy but of French parentage, and taken

early to France. Here, devoted to the education of youth, he conceived the project of smoothing the rugged path by the instructive games, known to children by the name of the 'Abbé Gaultier's Games.' The revolution forced him to quit France, however, for the Hague, where he accepted the situation of tutor to the children of the British ambassador, whom he accompanied to England. We now find him giving instruction gratuitously to the children of French emigrants; until the peace of Amiens allowed him to return to Paris, where he resumed his teaching, which he continued until his death, in 1818, in his seventy-fifth year. Some of his works have gone through twenty editions. The following are the principal—Leçons de Grammaire suivant la méthode des Tableaux analytiques, 1787; Jeu raisonnable et moral pour les Enfans, 1791; Méthode pour analyser la pensée et la réduire à ses Principes Elémentaires; Méthode pour apprendre grammaticalement la Langue Latine sans connaitre les règles de la Composition; Traits caracteristiques d'une mauvaise Education, ou Actions et Discours contraires a la Politesse, et regardés comme tels par les Moralistes tant Anciens que Modernes; Notions de géometrie pratique, nécessaires a l'exercice de la plupart des Arts et Metiers, 1807, &c. &c.

GAUNT, *adj.* } Saxon, gewaned, gewant,
GAUNTLY, *adv.* } from ȝepanian, to lessen. Thin; slender; meagre.

Oh, how that name befits my composition!
Old *Gaunt*, indeed, and *gaunt* in being old:
Within me grief hath kept a tedious fast;
And who abstains from meat that is not *gaunt*?
For sleeping England long time have I watched;
Watching breeds leanness, leanness is all *gaunt*:
The pleasure that some fathers feed upon
Is my strict fast; I mean my children's looks;
And therein fasting, thou hast made me *gaunt*:
Gaunt am I for the grave, *gaunt* as a grave,
Whose hollow womb inherits nought but bones.
Shakspeare. Richard II.

Two mastiffs, *gaunt* and grim, her flight pursued,
And oft their fastened fangs in blood embrued.
Dryden.

While the *gaunt* mastiff growling at the gate
Affrights the beggar whom he longs to eat. *Pope.*

Then Judah raged by ruffian discord led,
Drunk with the steamy carnage of the dead:
He saw his sons by dubious slaughter fall,
And war without, and death within the wall.
Wide wasting plague, *gaunt* famine, mad despair,
And dire debate, and clamorous strife was there.
Bp. Heber.

GAUNTLET, *n. s.* French, *gantelet;* Italian, *gaunto;* Goth. *vanta;* Belg. *want;* corrupted, probably, of Latin, *manica*, *manus*, the hand. An iron glove, used for defence, and thrown down in challenges; sometimes, in poetry, used for the cestus or boxing glove.

A scaly *gauntlet* now, with joints of steel,
Must glove his hand. *Shakspeare. Henry IV.*

Feel but the difference, soft and rough;
This a *gauntlet*, that a muff. *Cleaveland.*

Then put on all thy gorgeous arms, thy helmet
And brigandine of brass, thy broad habergeon,
Vant-brass, and greves, and *gauntlet*, add thy spear,
A weaver's beam, and seven times folded shield,
I only with an oaken staff will meet thee.
Milton's Samson Agonistes.

Some shall in swiftness for the goal contend,
And others try the twanging bow to bend;
The strong with iron *gauntlets* armed shall stand,
Opposed in combat on the yellow sand. *Dryden.*

Who naked wrestled best, besmeared with oil;
Or who with *gauntlets* gave or took the foil. *Id.*

The funeral of some valiant knight
May give this thing its proper light;
View his two *gauntlets*, these declare
That both his hands were used to war.
Prior.

So to repel the Vandals of the stage,
Our vet'ran bard resumes his tragic rage;
He throws the *gauntlet* Otway used to wield,
And calls for Englishmen to judge the field.
Southern

GAVOT, *n. s.* Fr. *gavotte.* A kind of dance.

The disposition in a fiddle to play tunes in preludes, sarabands, jigs, and *gavots*, are real qualities in the instrument. *Arbuthnot.*

GAVOT, GAVOTTA, or GAVOTTE, is a kind of dance, the air of which has two brisk and lively strains in common time, each of which is twice played over. The first has usually four or eight bars; and the second contains eight, twelve, or more. The first begins with a minim, or two crotchets, or notes of equal value, and the hand rising; and ends with the fall of the hand upon the dominant or mediant of the mode, but never upon the final, unless it be a rondeau: and the last begins with the rise of the hand, and ends with the fall upon the final of the mode.

GAVOTTA, TEMPI DI, is when only the time or movement of a gavotte is imitated, without any regard to the measure or number of bars or strains.

GAURA, in botany, Virginian loose-strife, a genus of the monogynia order, and octandria class of plants; natural order seventeenth, calycanthemæ: CAL. quadrifid and tubular: COR. pentapetalous, with the petals rising upwards. The nut is inferior, monospermous, and quadrangular. Species three; natives of North and South America.

GAURITZ, one of the most considerable, as well as a very rapid and dangerous river of the colony of the Cape of Good Hope. It rises in the Nieuweldt mountains, crosses the Karroo and Zevarte Berg, and falls into the Indian Ocean, in long. 21° 40′ E., lat. 34° 35′ S.

GAUSCHERKIE, a town of Upper Egypt, on the right bank of the Nile, opposite Tahta, supposed by Norden to be the ancient Diospolis. It contains a temple sixty paces in length and forty in breadth; the roof being well preserved; but it is employed by the Arabs as a cattle-shed

GAUZE, *n. s.* Fr. *gaze;* barbarous Lat. *gazatum;* as some have thought from Gaza; whence this silk first came into Europe. A kind of thin transparent silk.

Silken clothes were used by the ladies; and it seems they were thin, like *gauze*. *Arbuthnot.*

Brocadoes and damasks, and tabbies and *gauzes*,
Are lately brought over. *Swift.*

GAUZE, GAUSE, or GAWSE, in commerce, is woven sometimes of silk, and sometimes only of thread. To warp the silk for making gauze, they use a peculiar kind of mill, upon which

the silk is wound: this mill is a wooden machine about six feet high, having an axis perpendicularly placed in the middle thereof, with six large wings, on which the silk is wound from off the bobbins by the axis turning round. When all the silk is on the mill, they use another instrument to wind it off again on two beams: this done, the silk is passed through as many little beads as there are threads of silk; and thus rolled on another beam to supply the loom. There are figured gauzes; some with flowers of gold and silver, on a silk ground: these last are chiefly brought from China.

GAWK, *n. s.* Saxon, geac. A cuckow; a foolish fellow.

GAWN, *n. s.* } Scotch. A corruption
GAWNTREE, *n. s.* } for gallon: a wooden frame in which beer-casks are set when tunned.

GAY, *adj.* & *n. s.* } Fr. *gai*; Italian, *gaio*;
GAY'ETY, *n. s.* } Arm. *gae*. Cheerful;
GAY'LY, *adv.* } light; playful; or frolic-
GAY'NESS, *n. s.* } some: also applied to cheerful colors.

A virgin that loves to go *gay*. *Bar.* vi. 9.

There I was wont to be right fresh and *gay*,
Of clothing, and of other good array.
Chaucer. The Chanones Yemannes Tale.

Our *gayety* and our guilt are all besmirched,
With rainy marching in the painful field.
Shakspeare.

And from those *gayeties* our youth requires
To exercise their minds, our age retires. *Denham.*

Morose and untractable spirits look upon precepts in emblem, as they do upon *gays* and pictures, the tooleries of so many old wives' tales. *L'Estrange.*

The ladies, *gayly* dressed, the Mall adorn
With curious dies, and paint the sunny morn.
Gay.

Gay France shall make the Fan her artists' care,
And with the costly trinket arm the fair. *Id.*

Like some fair flower, that early Spring supplies,
That *gayly* blooms, but even in blooming dies.
Pope.

Smooth flow the waves, the zephyrs gently play,
Belinda smiled, and all the world was *gay*. *Id.*

Even rival wits did Voiture's fate deplore,
And the *gay* mourned, who never mourned befor .
Id

GAY (John), a celebrated English poet, descended from an ancient family in Devonshire, was born at Exeter, and educated at the free school of Barnstaple, under Mr. Rayner. He was afterwards designed for a mercer, but having a small fortune, and considering the attendance on a shop as a degradation of his talents, he resolved to indulge his inclination for the Muses In 1712 he became secretary to the duchess of Monmouth, and in 1714 accompanied the earl of Clarendon to Hanover. On queen Anne's death, he returned to England, where he was taken particular notice of by queen Caroline, then princess of Wales, to whom he read in MS. his tragedy of the Captives; and in 1726 dedicated his Fables, by permission, to the duke of Cumberland. From this it was supposed, that he would have been provided for in some office suitable to his inclination and abilities: but being in 1727 offered the place of gentleman usher to one of the youngest princesses, he thought proper to refuse it; and some warm remonstrances were made on the occasion by his friend and patron the duke of Queensberry, who withdrew from the court in consequence. The issue of such dependence on the delusive promises of the great, Gay has figuratively and humorously described in his fable of the Hare with many friends. The profits of his poems he lost in 1720, in the South Sea scheme. But the encouragement he met with from the public soon made ample amends for these private disappointments. In 1727-8, appeared his Beggar's Opera; the success of which was not only unprecedented, but almost incredible. It had an uninterrupted run in London for sixty-three nights in the first season, and was renewed in the ensuing one with equal approbation It spread into all the great towns of England; was acted in many places thirty and forty times, and last of all it was performed at Minorca. Nor was its fame confined to the reading and representation alone; the card table and drawing-room shared it with the theatre and closet; the ladies carried about its favorite songs engraven upon their fans, and screens and other pieces of furniture were decorated with them The profits were so great, both to the author and Mr. Rich the manager, that it gave rise to a popular pun, viz. That it had made Rich gay, and Gay rich. In consequence of this success, Mr. Gay was induced to write a second part to it, which he entitled Polly. But the disgust subsisting between him and the court, together with the report of his having written seditious pamphlets, occasioned a prohibition to be sent from the lord chamberlain, at the time when every thing was in readiness for the rehearsal. A very considerable sum, however, accrued to him from the publication of it afterwards in 4to. He wrote several other dramatic pieces, and many valuable ones in verse. Among the latter, his Trivia, or the Art of walking in the Streets of London, though his first poetical attempt, recommended him to the esteem and friendship of Mr. Pope: but as, among his dramatic works, his Beggar's Opera will perhaps ever stand as an unrivalled masterpiece, so among his poetical works, his Fables hold the highest estimation. Mr. Gay's disposition was affable, his temper generous, and his conversation agreeable. But he had the foible, too often incident to men of great literary abilities, viz. an excess of indolence, without any economy. So that though his emoluments were, at some periods of his life, very considerable, he was at others greatly straitened in his circumstances; nor could he prevail on himself to follow the advice of his friend Dean Swift, who endeavoured to persuade him to purchase an annuity, as a resource for the exigencies of old age. Mr. Gay therefore, after having undergone many vicissitudes of fortune, and being for some time chiefly supported by the duke and duchess of Queensberry, died at their house in Burlington gardens, in December, 1732. He was interred in Westminster Abbey, where a monument was erected to his memory, at their expense; with an epitaph by Pope.

GAYAH, or BOODH GAYAH, a town of the province of Bahar, Hindostan, one of the most celebrated places of Hindoo pilgrimage. It is

said to have been the birth-place of Boodh, or Budha. The revenue collected by government from the pilgrims amounts to above £16,000 per annum, a business managed entirely by the Brahmins. The image is that of a man sitting cross-legged, and so rudely carved as to give reason to suppose that it is of great antiquity. An inscription on one of the stones says 'The forefathers of him who shall perform the ceremony of the Sradha at this place shall obtain salvation.' 'A crime of an hundred fold shall undoubtedly be expiated from a sight thereof, of a thousand fold from a touch thereof, and of a hundred thousand fold from worshipping thereof.' Gayah is the residence of the civil establishment of the district of Bahar Proper, and has a cantonment for a battalion of native infantry.

GAZA (Theodore), a celebrated Greek of the fifteenth century, born in Thessalonica, in 1398. His country being invaded by the Turks, he retired into Italy; where he at first supported himself by transcribing ancient authors. In 1450 he was invited to Rome by Pope Nicholas V.; and on his death, in 1456, to Naples, by king Alphonso: who dying in 1458 he returned to Rome, where cardinal Bessarion procured him a benefice in Calabria. He translated from the Greek into Latin, Aristotle's History of Animals, Theophrastus on Plants, and Hippocrates's Aphorisms; and into Greek, Scipio's Dream, and Cicero's Treatise on Old Age. He wrote a Grammar and several other works in Greek and Latin; and died at Rome in 1478, aged eighty.

GAZA, in ancient geography, a principal city and one of the five satrapies of the Philistines. It was situated about 100 stadia from the Mediterranean, on an artificial mount, strongly walled round. It was destroyed by Alexander the Great, and afterwards by Antiochus. In the time of the Maccabees it was a strong and flourishing city; but was destroyed a third time by Alexander Jannæus. At present it is a mean place; but some remains of its ancient grandeur appear in the handsome pillars of Parian marble which are found here and there, in different parts of its streets. On the top of the hill, at the north-east corner of the town, are the ruins of large arches sunk low into the earth, and other foundations of a stately building. Soap and cotton cloths are the manufactures. Gaza is the residence of a Turkish bashaw. It was taken by the French under General Kleber in February 1799, and lies fifty miles south-west of Jerusalem.

GAZE, *v. n.*, *v. a.* & *n. s.* } Sax. ȝeȝean, to
GA'ZER, *n. s.* } see; Goth. *gasia*;
GAZE'FUL, *adj.* } Gr. αγαζεσθαι. To
GAZE'HOUND, *n. s.* } look earnestly or in-
GA'ZINGSTOCK, } tently upon: intense regard, or earnest observation; the object on which attention is rivetted; the person thus occupied. A hound, that pursues not by scent, but by sight. A person gazed at with derision or abhorrence.

Being lightened with her beauty's beam,
And thereby filled with happy influence,
And lifted up above the world's *gaze*,
To sing with angels her immortal praise.
Spenser.

The brightness of her beauty clear,
The ravisht hearts of *gazeful* men might rear
To admiration of that heavenly light. *Id.*

Do but note a wild and wanton herd,
If any air of musick touch their ears,
You shall perceive them make a mutual stand,
Their savage eyes turned to a modest *gaze*,
By the sweet power of musick. *Shakspeare.*

Not a month
'Fore your queen dyed, she was more worth such *gazes*
Than what you look on now. *Id.*

A lover's eyes will *gaze* an eagle blind. *Id.*

What see'st thou there? King Henry's diadem,
Inchased with all the honours of the world:
If so, *gaze* on. *Id. Henry IV.*

Straight toward heaven my wondering eyes I turned,
And *gazed* awhile the ample sky. *Milton.*

With secret *gaze*,
Or open admiration, him behold,
On whom the great Creator hath bestowed
Worlds. *Id. Paradise Lost.*

I must die
Betrayed, captived, and both my eyes put out;
Made of mine enemies the scorn and *gaze*:
To grind in brazen fetters, under task,
With my heaven-gifted strength. *Id. Agonistes.*

These things are offences to us, by making us *gazing stocks* to others, and objects of their scorn and derision. *Ray.*

See'st thou the *gazehound!* how with glance severe
From the close herds he marks the destined deer!
Tickel.

Bright as the sun, her eyes the *gazers* strike;
And, like the sun, they shine on all alike. *Pope.*

His learned ideas gave him a transcendent delight, and yet, at the same time, discover the blemishes which the common *gazer* never observed. *Watts.*

High stations tumults, but not bliss, create;
None think the great unhappy, but the great:
Fools *gaze* and envy; Envy darts a sting,
Which makes a swain as wretched as a king.
Young.

Her ruby lips lock up from *gazing* sight
A troop of pearls, which march in goodly row:
But when she deigns those precious bones undight,
Soon heavenly notes from those divisions flow.
Fletcher's Purple Island.

With awe and wonder *gazed* the adoring swain;
His kindling cheeks great Virtue's power confessed
But soon t'was o'er, for Virtue prompts in vain,
When Pleasure's influence numbs the nerveless breast.
Beattie. Judgment of Paris

The tender blue of that large loving eye
Grew frozen with its *gaze* on vacancy.
Byron. Corsair.

GAZEL, *n. s.* An Arabian deer.

Crystal and marble, plate and porcelain,
Had done their work of splendour; Indian mats,
And Persian carpets, which the heart bled to stain
Over the floors were spread; *gazelles* and cats,
And dwarfs and blacks, and such like things, that gain
Their bread as ministers and favorites—(that's
To say, by degradation)—mingled there
As plentiful as in a court or fair.
Byron. Don Juan.

GAZETTE, *n. s.* } *Gazetta* is a Venetian
GAZETTEER, *n. s.* } halfpenny, the price of a newspaper, of which the first was published in Venice. A paper of public intelligence. A wri-

ter of news; a dictionary of places or of geography.

And sometimes when the loss is small,
And danger great, they challenge all;
Print new editions to their feasts,
And emendations in *gazettes*. *Hudibras.*

An English gentleman, without geography, cannot well understand a *gazette*. *Locke.*

One cannot hear a name mentioned in it that does not bring to mind a piece of the *gazette*. *Addison.*

All, all but truth, falls dead-born from the press;
Like the last *gazette*, or the last address. *Pope.*

Satire is no more: I feel it die;
No *gazetteer* more innocent than I. *Id.*

He (Brookes) was also the author of a most excellent *gazetteer*. *Thuring.*

And more might be found out if I could poke enough
Into *gazettes*, but Fame (capricious strumpet)
It seems has got an ear as well as trumpet. *Byron.*

GAZETTE is with us confined to that paper of news published by authority. The first English gazette was published at Oxford, the court being there, in a folio half sheet, November 7th, 1665. On the removal of the court to London, the title was changed to the London Gazette. The Oxford gazette was published on Tuesdays, the London on Saturdays: and these continued to be the days of publication, after they were both published in London till very lately. It is now published every Tuesday and Friday evening.

GAZNA, a city of Asia, once much celebrated, and the capital of an extensive empire; now ruined and almost forgotten. During the vast and rapid conquests of the Arabs, all this country had been reduced under their subjection. On the decline of the power of the caliphs, however, the vast empire established by Mahomet and his successors was divided into a number of independent principalities, most of which were but of short duration. In the year of the Hegira 384, answering to A. D. 994, Gazna, with some part of the adjacent country, was governed by Mahmud Gazni; who became a great conqueror, and reduced under his subjection a considerable part of India and most of Persia. This empire continued in the family of Mahmud Gazni for upwards of 200 years. None of his successors, however, possessed his abilities; and therefore the extent of the empire, instead of increasing, was very considerably diminished soon after his death. The Seljuks took Khorasan; the greatest part of the Persian dominions fell off; and in the 547th year of the Hegira, the race of the Gazni sultans was entirely set aside by one of the Gauri, who conquered Khofru Shah the reigning prince, and bestowed his dominions on his own nephew, Gayathoddin Mohammed. These new sultans proved greater conquerors than the former, and extended their dominions farther than even Mahmud Gazni had done. They did not, however, long enjoy the sovereignty of Gazna; for in 1218 Jenghiz Khan, having conquered the greatest part of China and almost all Tartary, began to turn his arms westward; and set out against Gazna at the head of 700,000 men. To oppose this formidable army, Mohammed, the reigning sultan, could muster only 400,000 men; and, in the first battle, 160,000 of his troops perished. After this defeat, Mohammed, not daring to risk a second battle, distributed his army among the strongest fortified towns in his dominions; all of which Jenghiz Khan took one after another. The rapid progress of his conquests, indeed, almost exceeds belief. Immediately after the destruction of Bamiyan, Jenghiz marched towards Gazna, which was strongly fortified, and where he expected to have found Jaloloddin, who had now succeeded his father Mohammed. But he had left it fifteen days before; and, when Jenghiz Khan's army came up with him near the Indus, he attacked the vanguard in their camp; and having cut them almost all to pieces, without the loss of a man on his side, returned with a considerable booty. Jenghiz Khan, finding by this that he had a vigilant enemy to deal with, proceeded with great circumspection. When he had brought up the main body of his forces, he gave the command of the right and left wings to Jagatay and Oktay; and put himself in the centre, with 6000 of his guards. On the other side, Jaloloddin prepared for battle like one who had no resource but in victory. He first sent the boats on the Indus farther off; reserving only one to carry over his mother, wife, and children. He himself took the command of the main body. His left wing, drawn up under shelter of a mountain, was commanded by his vizier. The battle was terrible, and the success various throughout a whole day. At last, however, Jaloloddin's men, who were in all 30,000, opposed to ten times their number, were seized with a panic, and fled. One part of them retired to the rocks on the shore of the Indus, where the enemy's horse could not follow them; others threw themselves into the river and were drowned, though some had the good fortune to cross over in safety: while the rest, surrounding their prince, continued the fight through despair. The sultan, however, considering that he had scarce 7,000 men left, began to think of providing for his own safety: therefore, having bidden adieu to his mother, wife, and children, he mounted a fresh horse and spurred him into the river, which he crossed in safety, and even stopped in the middle of it to insult Jenghiz Khan, who was now arrived at the bank. His family fell into the hands of the Moguls; who killed all the males, and carried the women into captivity. Jaloloddin, having landed in India, ascended a tree to preserve himself from wild beasts. Next day, as he sauntered among the rocks, he perceived a troop of his soldiers, with some officers, who at the beginning of the defeat had found a boat in which they had escaped, and soon after saw 300 horse coming towards him; who informed him of 4,000 more that had passed the river. For some time after this the sultan's affairs seemed to revive, and he gained some battles in India; but the native princes, envying his prosperity, conspired against him, and obliged him to repass the Indus. Here he again attempted to make head against the Moguls; but was at last defeated and killed by them, who thus put an end to the once mighty empire of Gazna. The metropolis was reduced by Oktay, who committed the most horrid cruelties in the neighbourhood. The city was well provided for sustaining a siege; had a strong garrison, and a brave and resolute governor; and the inhabitants,

expecting no mercy from Jenghiz Khan, resolved to make a desperate defence. They several times overthrew his works, and broke above 1000 of the battering rams of the besiegers. But one night, after an obstinate conflict, part of the city wall fell down; and a great number of Moguls, having filled up the ditch, entered the city sword in hand. After the massacre had continued four or five hours, Oktay imposed a tax on those who were left alive, to redeem themselves and the city. After this time Gazna never made any considerable figure. It was taken by the Moguls A. D. 1222.

GAZON, *n. s.* Fr. Pieces of fresh earth covered with grass, and used to line parapets and the traverses of galleries, in fortification.

GAZYPOOR, a town and district of the province of Allahabad, Hindostan, in the collectorship of Benares. It is bounded on the north and east by the river Goggrah, on the south by the Ganges, and on the west by Joanpore. It is remarkably fertile and well watered; producing maize and other grain, cotton, opium, and sago in great abundance: also some very fine indigo, and the otto of roses. The town of Gazypoor stands on the Ganges, and has a palace and mosque both of superior structure.

Gazypoor is also the name of a district of India, on the south bank of the Toombadre.

GEAR, *n. s.* Sax. ȝeapꝑe, furniture; ȝýꝑian, to clothe. Furniture, possessions, and ornaments; hence applied to the traces of oxen and horses: stuff.

An hundred lordes had he with him there,
All armed, save hir hedes, in all hir *gere*
Ful richely in alle manere thinges.
Chaucer. The Knightes Tale.

Into a studie he fell sodenly,
As don these lovers in hir queinte *geres*
Now in the crop, and now down in the breres. *Id.*

Array thyself in her most gorgeous *gear*.
Spenser. Faerie Queene.

If fortune be a woman, she is a good wench for this *gear*. *Shakspeare. Merchant of Venice.*

When he found her bound, stript from her *gear*,
And vile tormentors ready saw in place,
He broke through. *Fairfax.*

Apollo's spite Pallas discerned, and flew to Tydeus' son;
His scourge reacht, and his horse made fresh; then took her angry run
At king Eumelus, brake his *gears*. *Chapman's Iliad.*

When once her eye
Hath met the virtue of this magick dust,
I shall appear some harmless villager,
Whom thrift keeps up about his country *gear*.
Milton.

The frauds he learned in his frantick years
Made him uneasy in his lawful *gears*. *Dryden.*

I fancy every body observes me as I walk the street, and long to be in my old plain *gear* again.
Addison's Guardian.

To see some radiant nymph appear
In all her glittering birthday *gear*,
You think some goddess from the sky
Descended, ready cut and dry. *Swift.*

GEASON, *adj.* Sax. ȝeꝛean, to see or gaze: found only in Spenser. Wonderful. See Gaze.

It to Leeches seemed strange and *geason*.
Hubbard's Tale.

GEAT, *n. s.* Corruption of jett. The hole through which the metal runs into the mould.

GEBER, a king or chief of the Arabs, who wrote several tracts on chemistry, or rather alchemy, in Latin; printed from a copy in the Vatican, at Dantzic, in 1682 in 16mo. In this work he is styled not only rex Arabum, but philosophus perspicacissimus; and in two of these tracts, viz. Liber Investigationis Magisterii, and Testamentum de salibus animalium, &c., he is also styled Indiæ rex, though it seems difficult to account for such very distinct titles.

Geber (John), a physician and astronomer of Arabia, who flourished in the ninth century. He wrote a commentary on Ptolemy's Syntaxis Magna, in which he attempted to correct his Astronomy, but Copernicus styles him the Calumniator of Ptolemy. He wrote several other works, and Boerhaave styles him a learned chemist. But his writings are so full of the jargon of the alchemists, that Dr. Johnson traces the derivation of the word gibberish from them. See Gibberish.

GECK, *n. s.* & *v. a.* Sax. geac; Ger. *geck*, a fool. A bubble (obsolete): to cheat.

Why did you suffer Jachimo to taint his nob.e heart and brain with needless jealousy, and to become the *geck* and scorn o'th'other's villainy? *Shakspeare.*

Why have you suffered me to be imprisoned,
And made the most notorious *geck* and gull
That e'er invention played on? *Id.*

GECKO. See Lacerta.

GED (William), a goldsmith of Edinburgh, was an ingenious artist, and has been said to have first attempted to introduce the art of stereotype printing. The invention, first practised by him in 1735, was simply this:—From any types of Greek or Roman, or any other character, he formed a plate for every page, or sheet of a book, from which he printed, instead of using a type for every letter, as is done in the common way. In July, 1729, Ged entered into partnership with William Fenner, a London stationer, who was to have half the profits, in consideration of his advancing all the money requisite. In 1730 the partners applied to the University of Cambridge to print bibles and common prayer books by blocks instead of single types; and, in consequence, a lease was sealed to them, April 23d, 1731. In their attempt they sunk a large sum of money, and finished only two prayer books; so that it was relinquished and the lease given up in 1738. Ged imputed his disappointment to the villany of the pressmen, and the ill treatment of his partners, particularly Fenner. He returned to Scotland in 1733, where he gave his friends a specimen of his performance, by an edition of Sallust. But, being still unsuccessful, he was preparing again to set out for London, to join with his son James as a printer there, when he died October 19th, 1749.

GEDDES (Alexander), LL.D., a Scottish Roman Catholic priest, born in Ruthven, in 1737. He very early discovered a taste for learning, and was accordingly sent to a school in the Highlands where those designed for the Catholic priesthood received their early education; and here Geddes laid the foundation of that intimate acquaintance with the learned languages by which he was afterwards so distinguished. In 1758 he went

to the Scottish University at Paris, and soon after became a student in rhetoric and theology at the college of Navarre. He returned to his native country in 1764, and became priest in the county of Angus; but the following year he was made chaplain to the earl of Traquair; with whom he continued about three years. In 1768 he again visited Paris. Returning again to his native country, early in 1769, he undertook the charge of a congregation at Auchinlarig in Bamffshire: the same year, however, he quitted his pastoral charge, and obtained the year following the degree of LL. D. from the University of Aberdeen, which had never so honored any Roman Catholic since the Reformation. About this time he removed to London, where he officiated some time in the imperial ambassador's chapel, and afterwards at that in Duke-street, Lincoln's Inn-fields. In 1782 he began to devote himself to a design which he had long entertained, of giving the world a new English translation of the Old and New Testaments. The prospectus of this work was published in 1786, and the following year an Appendix to it, and a Letter to Bishop Lowth. This year also he gave a display of his controversial talents, in an Answer to Dr. Priestley on the Divinity of Christ. In 1788 he published farther proposals for his Translation of the Bible, and two years after, a general Answer to the Queries, Counsels, and Criticisms, communicated to him relative to the work. He was liberally supported in the undertaking by lord Petre; and the first volume of it, comprising the Pentateuch and the book of Joshua, appeared in 1792; but even those of his own communion directly avowed their disapprobation of it, and some of the Roman Catholic bishops suspended the doctor from his ecclesiastical functions. He replied to these attacks in pamphlets written with great coarseness and illiberality. The second volume of his version was published in 1798; and in it he gives up and daringly combats the inspiration of Scripture. In the spring of 1800 he published his Apology for the Roman Catholics of Great Britain, and the same year Critical Remarks in vindication of his version of Scripture, which he prepared for the press as far as the 118th Psalm; but died on the 26th of February, 1802.

GEDINGOOMA, a fortified town of Kaarta, in Western Africa. Its walls are of stone, and so high that, in the narrow pass here between two hills, they have enabled Doisy the king of this place, to set the power of Bambara at defiance. It is thirty miles north-west of Kemmoo.

GEESE. Plural of goose. See Goose.

GEFLE, or Giawle, a town on the Gulf of Bothnia, belonging to Sweden, and the seat of several provincial courts. The river Gefle flows through the middle of the town, falling into the gulf in three branches, and forms a good harbour, defended by a long jette. The inhabitants carry on a brisk maritime traffic, exporting pitch, tar, iron, and planks. It has a castle, which was burnt in 1727, but rebuilt. Population between 5000 and 6000. Sixty miles north of Upsal.

GEFLEBORG, a newly erected government of Sweden, situated between Dalecarlia and West Norrland, and extending from the gulf of Bothnia to the Norwegian mountains. Its extent is above 9000 square miles, but its population only about 90,000. It is mountainous on the side of Norway, and is, in general, covered with wood. Here are also a number of productive iron mines. The capital is Gefle.

GEHENNA, Gehinnon, Gr. Γεεννα, of Heb. גאחנרם, a term which occurs in Matt. v. ver. 22, 29, 30: x. 28; xviii. 9; xxiii. 15, 33. Mark ix. 43, 45, 47. Luke xii. 5. James iii. 6. The authors of the Louvain and Geneva versions retain the word gehenna as it stands in the Greek; as does M. Simon; the English translators render it by hell and hell-fire, and so do the translators of Mons and Father Bouhours. In the valley of Hinnom, near Jerusalem, there was a place named Tophet, where the idolatrous Jews sacrificed their children to Moloch, by fire. (See Ben-Hinnom and Moloch). King Josias, to render this place for ever abominable, made a common sewer of it, where all the filth and carcases of the city were cast; and where a continual fire was kept up, to burn those carcases; for which reason, as the Jews had no proper term in their language to signify hell, they made use of gehenna or gehinnon, to denote a perpetual fire.

GEISLINGEN, a town of Wirtemburg, remarkable for its bone turners, who amount to about 1600 or 1700. In the neighbourhood is a much frequented mineral spring. Twelve miles west of Ulm.

GELA, in ancient geography, a city of great extent on the south of Sicily, so named from the Gelas. It was built by colonists from Rhodes and Crete, forty-five years after the building of Syracuse, in the third year of the twenty-second Olympiad, A. A. C. 690; and originally called Lindii, from the colonists of Lindus, a city of Rhodes, who settled there first. This city, after having stood 408 years, was destroyed by Phintias, tyrant of Agrigentum; and the inhabitants were removed to a new city called Phintias after his name. It is now called Terra Nuova.

GEL'ABLE, *adj.* } Lat. *gelu.* Whatever
GEL'ATINE, *n. s.* } may be reduced to a jelly.
GELAT'INOUS, *adj.* } Gelatine is a term applied
GEL'LY, *n. s.* } to a substance of this nature which forms part of animal bodies; gelatinous, that which partakes of a thick cohesive character.

My best blood turn
To an infected *gelly.*
Shakspeare. Winter's Tale.

The tapers of the gods,
The sun and moon, became like waxen globes,
The shooting stars end all in purple *gellies,*
And chaos is at hand. *Dryden and Lee's Oedipus.*

That pellucid *gelatinous* substance is an excrement cast off from the shoals of fish that inhabit the main.
Woodward.

The white of an egg will coagulate by a moderate heat, and the hardest of the animal solids are resolvable again into *gellies.* *Arbuthnot.*

You shall always see their eggs laid carefully up in that spermatick *gelatine* matter, in which they are reposited. *Derham.*

Gelatin, or jelly, an animal substance, soluble in water, capable of assuming a well-known

elastic or tremulous consistence, by cooling, when the water is not too abundant, and liquefiable again by increasing its temperature. This last property distinguishes it from albumen, which becomes consistent by heat. With tannin it forms an insoluble compound already mentioned. Its aqueous solution, evaporated to dryness, is glue. Decomposed by nitric acid, a large quantity of gas disengages, and oxalic acid is formed. In close vessels, it gives over carbonic acid, hydro-carbonic gas, carbonate of ammonia, and empyreumatic oil; its carbonaceous residuum containing phosphate of lime. Hence gelatin is not nearly so much compounded as albumen, having only carbon, hydrogen, azote, phosphorus, lime, and oxygen, as its ultimate elements.

According to the analysis of MM. Gay Lussac and Thenard, gelatin is composed of

Carbon, . . .	47·881
Oxygen, . . .	27·207
Hydrogen, . .	7·914
Azote, ...	16.998
	100·000

GELD, *v. a.* GELD'ER, *n. s.* GELD'ING, *n. s.* GELT, *n. s.* & *part.* } Goth. and Teut. *gelden*, Germ. *gelten*. To castrate, or emasculate. A term also used figuratively. The person who performs the operation. Any animal thus deprived, particularly the horse.

No berde hadde he, ne never none shulde have;
As smothe it wos as it were newe shave:
I trowe he were a *gelding* or a mare.
Chaucer. Prologue to Cant. Tales.

Geld later with *gelders*, as many one do,
And look of a dozen to *geld* away two. *Tusser.*

Geld bull-calf and ram-lamb as soon as they fall.
Id.

Lord Say hath *gelded* the commonwealth, and made it an eunuch. *Shakspeare. Henry VI.*

He bears his course, and runs me up
With like advantage on the other side,
Gelding the opposed continent as much
As on the other side it takes from you.
Shakspeare.

Though naturally there be more males of horses, bulls, or rams, than females; yet artificially, that is, by making *geldings*, oxen, and wethers, there are fewer. *Graunt.*

Never old lecher more repugnant felt
Consenting for his *rupture* to be *gelt*. *Marvell.*

No sow-*gelder* did blow his horn
To *geld* a cat but cryed reform. *Hudibras.*

The lord-lieutenant may choose out one of the best horses, and two of the best *geldings*; for which shall be paid one hundred pounds for the horse, and fifty pounds a-piece for the *geldings*. *Temple.*

They were diligent enough to make sure work, and to *geld* it so clearly in some places, that they took away the very manhood of it. *Dryden.*

The spayed *gelts* they esteem the most profitable.
Mortimer.

Let the others be *gelt* for oxen.
Id. Husbandry.

GELD, in the old English customs, a Saxon word signifying money, or tribute. It also denoted a compensation for some crime committed: hence wergeld, in their ancient laws, was used for the value of a man slain; and orfgeld, of a beast.

GELDENHARIUS, GELDENHAUR (Gerard Eobanus), an historian and Protestant divine, born at Nimeguen in 1482. He studied classical learning at Deventer, and went through his course of philosophy at Louvaine, where he contracted a friendship with Erasmus. He became reader and historian to Charles of Austria, and afterwards to Maximilian of Burgundy. At length he embraced the Protestant religion; taught history at Marpurg; and afterwards divinity till his death, in 1542. He wrote, 1. History of Holland; 2. History of the Low Countries; 3. History of the Bishops of Utrecht; and other works.

GELDER-ROSE. A rose supposed to come originally from Guelderland. See VIBURNUM.

The *gelder-rose* is increased by suckers and cuttings.
Mortimer.

GELDER ROSE, VIRGINIAN. See SPIRÆA.

GELDERS. See GUELDRES.

GEL'ID, *adj.* GELID'ITY, *n. s.* GEL'IDNESS, *n. s.* } Lat. *gelidus*. Extreme cold.

From the deep ooze and *gelid* cavern roused,
They flounce. *Thomson's Spring.*

GELLAH, or COLLAH, a fortified place of Algiers, on a high and conical mountain near the Mejerdah. It has become a place of refuge for criminals, and has only one narrow path leading to it. Eighty-six miles east of Constantina.

GELLAH, a town of Tunis, in Africa, situated on a rugged promontory, near the river Mejerdah. Publius Cornelius Scipio fixed his winter-quarters here, and it was called after him Castra Corneliana.

GELLERT (Christian Furchtegott), a German poet and critic, was born in 1715 at Haynichen, near Freyberg, in Saxony. His father was a clergyman, and placed him at a school at Meissen, where he contracted an intimacy with Rabener and Gaertner, which lasted until their respective deaths. In 1734 he went to Leipsic to study theology, and returned home, after four years, as a preacher. He afterwards became private tutor to young gentlemen of fortune, with one of whom he returned in 1741 to Leipsic. His first poetical production was, Amusements of Reason and Wit, begun 1742. In 1744 he took the degree of M. A., and published, the following year, the first volume of his Fables, some plays, and a novel, entitled The Swedish Countess. In 1748 appeared the second volume of his Fables, and a work called, Consolations for Valetudinarians, suggested by the state of his own health. In 1751 he was made professor extraordinary of philosophy at Leipsic; he died 13th December, 1769. His works have often been published collectively or separately.

GELLERT (Christlieb Ehregott), brother of the preceding, a distinguished metallurgist, first studied at Meissen, and then at the university of Leipsic. Being invited to Petersburg, he became an adjunct of the academy there for ten years; and very intimate with the celebrated Euler. He returned to Saxony about 1746, to prosecute his researches, when his mineralog-

cal lectures attracted a great many strangers to Freyberg. In 1753 he was nominated counsellor-commissary of the mines, and charged with the inspection of machines and the examination of the ores and minerals of his native country. In 1764 he became administrator in chief of foundries and forges at Freyberg; in 1765 professor of metallurgy at the academy of mines in that city; and at length, in 1782, effective counsellor of mines. He suggested great improvements in his mineralogical researches; and was the first introducer of the process of parting metals by amalgamation. He died May, 1795; having published Elements of Docimastics, translated from the Latin of Cramer; Elements of Chemical Metallurgy, 2 vols. 8vo., &c.

GELLIUS (Aulus), a celebrated grammarian, who lived in the second century under Marcus Aurelius and some succeeding emperors. He wrote a collection of observations on authors, for the use of his children; and called it Noctes Atticæ, because composed in the nights of a winter he spent at Athens. The chief value of it is for preserving many facts and monuments of antiquity not to be found elsewhere.

GELT, *n. s.* Corrupted from *gilt*. Tinsel; gilt surface.

I won her with a girdle of *gelt*,
Embost with bugle about the belt.
Spenser's Pastorals.

GEM, *n. s.*, *v. n.* & *v. a.* } Sax. ȝim; Ital-
GEM'MARY, *adj.* } and Lat. *gemma*. A
GEM'MEOUS, *adj.* } precious stone of
GEM'MOSITY, *n. s.* } any kind, or whatever pertains or tends to gems or jewels. The first bud of a tree or flower.

This *gem* of chastitee, this emeraude
And eke of martyrdome the rubie bright,—
Ther he with wrote ycowen lay upright.
Chaucer. The Prioresses Tale.

I saw his bleeding rings,
Their precious *gems* now lost, became his guide,
Led him, begged for him, saved him from despair.
Shakspeare.

From the joints of thy prolific stem
A swelling knot is raised, called a *gem*;
Whence, in short space, itself the cluster shows.
Denham.

Last rose, in dance, the stately trees, and spread
Their branches, hung with copious fruit; or *gemmed*
Their blossoms. *Milton's Paradise Lost.*

The principle and *gemmary* affection is its translucency: as for irradiancy, which is found in many *gems*, it is not discoverable in this. *Browne.*

Love his fancy drew;
And so to take the *gem* Urania sought. *Sidney.*

Emboldened out they come,
And swell the *gems*, and burst the narrow room.
Dryden.

Sometimes we find them in the *gemmeous* matter itself. *Woodward.*

Court-virtues bear like *gems* the highest rate,
Born where heaven's influence scarce can penetrate.
Pope.

Full many a *gem* of purest ray serene
The dark unfathomed caves of ocean bear;
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air.
Gray's Elegy.

But, as the *gem* of richest cost,
Is ever counterfeited most,
So always, imitation
Employs the utmost skill she can
To counterfeit the faithful man,
The friend of long duration. *Cowper*

Deep in yon mountain's womb, where the dark cave
Howls to the torrents everlasting roar,
Does the rich *gem* its flashy radiance wave,
Or flames with steady ray the imperial ore.
Beattie. Judgment of Paris.

Her hair was starred with *gems*; her veil's fine fold
Below her breast was fastened with a band
Of lavish pearls, whose worth could scarce be told.
Byron. Don Juan.

GEMAPPE, or JEMAPPES, a small town of the Netherlands, in Hainault, near the Scheldt, on the road from Mons to Valenciennes, two miles from the former. It is chiefly remarkable for the victory gained here by Dumouriez over the Austrians, 6th November, 1792, and gave name to a department when the Netherlands were subject to France. Inhabitants 2300.

GEMARA, or GHEMARA, the second part of the Talmud. The Hebrew word גמרה, *gemara*, is commonly supposed to denote a supplement; but in strictness it rather signifies complement, or perfection; being formed of the Chaldee גמר, gemar or ghemar, 'to finish, perfect, or complete any thing.' The rabbins call the Pentateuch simply the law: the first part of the Talmud, which is only an explication of that law, or an explication thereof to particular cases, with the decisions of the ancient rabbins thereon, they call the Mischna, i. e. second law; and the second part, which is a more extensive explication of the same law, and a collection of decisions of the rabbins posterior to the Mischna, they call Gemara, q. d. perfection, completion, finishing; because they esteem it the finishing of the law, or an explication beyond which there is nothing farther to be desired. The Gemara is often called simply the Talmud, the common name of the whole work. In this sense, there are two Gemaras or Talmuds; that of Jerusalem and that of Babylon; though in strictness the Gemara is only an explication of the Mischna, given by the Jewish doctors in their schools. See MISCHNA. A commentary, Mons. Tillemont observes, was wrote on the Mischna, by one Johanan, whom the Jews placed about the end of the second century; but Father Morin proves, from the work itself, wherein mention is made of the Turks, that it was not written till the time of Heraclius, about A. D. 620; and this is what is called the Gemara, or Talmud of Jerusalem, which the Jews do not use or esteem much because of its obscurity. They set a much greater value on the Gemara, or Talmud of Babylon, begun by one Asa; discontinued for seventy-three years, on occasion of the wars with the Saracens and Persians; and finished by one Josa, about the close of the seventh century. See TALMUD. Though the name Talmud in its latitude includes both the Mischna and the two Gemaras, yet it is properly that of Asa and Josa alone which is meant under that name. This the Jews prize above all their other writings, and even set it on a level with Scripture itself: in effect, they conceive it as the word of God derived by tradition from Moses, and preserved without in-

terruption to their time. R. Jehuda, and afterwards R. Johanan, R. Asa, and R. Josa, fearing the traditions should be lost in the dispersion of the Jews, collected them into the Mischna and the Gemara.

GEMATRIA, or GAMETRIA, the first kind of artificial cabbala used by the Jews. The word is formed from the rabbinical Hebrew נימטרא, by corruption of the Greek. Gematria is a geometrical or arithmetical method of explaining these words, whereof there are two kinds; the first bearing a more immediate relation to arithmetic, and the latter to geometry. Thus a cabbalist, taking the two first words in Genesis, בראשית ברא, and by addition getting the sum total of all the numbers signified by those letters, finds that these two words signify the same as those other three, בראש-חשנה-נברא. For as to the first, ב, is 2; ר, 200; א, 1; ש, 300; י, 10; ת, 400; ב, 2; ר, 200; and א, 1; which, together, make 1116. And as to the latter, ב signifies 2; ר, 200; א, 1; ש, 300; ח, 5; נ, 50; ש, 300; ח, 5; נ, 50; ב, 2; ר, 200; and א, 1; which, summed up, yield the same number 1116.

Whence the cabbalist concludes, בראשית ברא in the beginning he created, signifies the same thing as בראשחשנה־נברא, it was created at the beginning of the year: and, accordingly, the received opinion of the cabbalists is, that the world was created at the beginning of the month Tisri, which was anciently the first month in the year, and answers to our first month in autumn, viz. September.

GEMBLOURS, or GIBLOU, a town of France, in the department of Dyle, and ci-devant province of Austrian Brabant, seated on the Orne. In 1578 a battle was fought near it between the Dutch and the Spaniards, under Don John of Austria, wherein the former were defeated. It was twice burned down, viz. on the 6th of August, 1678, and 17th August, 1712. It lies ten miles north-west of Namur, and twenty-two south-east of Brussels.

GEMELLIP'AROUS, *adj.* Lat. *gemelli* and *pario*. Bearing twins.

GEM'INATE, *v. a.* } Lat. *gemino*. Repe-
GEMINA'TION, *n. s.* } tition; whether used
GEM'INY, *n. s.* } in relation to beings
GEM'INOUS, *adj.* } or arguments.

have grated upon my good friends for three reprieves for you, and your couch-fellow, Nim; or else you had looked through the grate, like a *geminy* of baboons. *Shakspeare.*

Christians have baptized these *geminous* births, and double connascencies, with several names, as conceiving in them a distinction of souls. *Browne.*

Be not afraid of them that kill the body; fear him, which, after he hath killed, hath power to cast into hell; yea, I say unto you, with a *gemination*, which the present controversy shows not to have been causeless, fear him. *Boyle.*

A *geminy* of asses split will make just four of you. *Congreve.*

GEMINI, in astronomy, the Twins; a constellation or sign of the zodiac, the third in order, representing Castor and Pollux; and marked thus, ♊. See ASTRONOMY.

GEMINIANI (Francis), a celebrated musician and composer, born at Lucca in 1680. He received his first instructions in music from Alex. Scarlatti; he next became a pupil of Charles Ambrose Lunati, surnamed Il Gobbo, a celebrated performer on the violin; after which he was a disciple of Correlli. In 1714 he came to England, where he soon recommended himself greatly by his performances. In 1716 he published and dedicated to baron Kilmansegge, chamberlain to king George I. as elector of Hanover, twelve sonatas a violino violine e cembalo: the first six with fugues and double stops; the last with airs of various measures, as alamandes, courants, and jiggs. This publication was so much admired by the baron, that he mentioned Geminiani to the king as an excellent performer; in consequence of which he had the honor to perform before his majesty, in concert with Handel. But, though Geminiani was exceedingly admired, he had no genius for associating music with poetry, nor do we find that he ever became a public performer. He was therefore obliged to depend for his subsistence on the friendship of his patrons, and the profits which accrued to him from teaching. He was also an enthusiast in painting, and the versatility of his temper was such, that, to gratify this passion, he neglected to exercise his musical talents, and became involved in debt. In 1727 he was offered the place of master and composer of the state music in Ireland; but this could not be conferred on a Catholic, and Geminiani refused to change his religion. He then began to compose parts to the opera quinta of Corelli; and to make concertos of the first six of his solos. This work he completed, and, with the help of a subscription, at the head of which were the names of the royal family, he published it in 1726. In 1732 he published his Opera Secunda, containing a celebrated minuet that goes by his name, which did not much improve his circumstances; but Geminiani was an utter stranger to the business of the orchestra, and had no idea of the labor necessary in the instruction of singers, for the performance of music to which they were strangers. The consequence of this was, that a concerto spirituale, which he had advertised for his own benefit in 1748, failed entirely in the performance. He now went to Paris for six or seven years, and, about 1755, returned to England. In 1761 he went over to Ireland, where he was kindly received by Mr. Matthew Dubourg, who had been his pupil, and who was then master of the king's band. Here he died under very peculiar circumstances. He had spent many years in compiling an elaborate treatise on music, which he intended for publication; but soon after his arrival, by the treachery of a female servant, who, it was said, was recommended to him for no other end, but that she might steal it, it was conveyed away and could not be recovered. The greatness of this loss, and his inability to repair it, hastened his end; at least he survived it but a short time, dying on the 17th September, 1762. Of his solos the Opera Prima is esteemed the best. Of his concertos some are excellent, others of them scarce pass the bounds of mediocrity. The sixth

of the third opera not only surpasses all the rest, but, in the opinion of the best judges of harmony, is one of the finest instrumental compositions extant.

GEMISHKHANA, Silver House, a well-built town of Asia Minor, on the frontiers of Armenia. Its name is derived from a silver mine in its neighbourhood, which, however, does not yield now a third part of the metal it once did. Inhabitants 7000. Thirty miles south of Trebisond.

GEMISTUS (George), surnamed Plethe, a native of Constantinople, from which, upon its capture by the Turks, he retired to Florence. In 1438 he distinguished himself at the council of Florence, by his learning and abilities. He wrote, 1. Commentaries upon the Magic Oracles of Zoroaster; a work of considerable erudition; 2. A Comparison between Plato and Aristotle; and 3. Historical Treatises; wherein he discovers great knowledge of Grecian history. He died aged above 100.

GEMMA (Reinier), an eminent Dutch physician, born in Friesland, in 1508. He was well versed in astronomy, and wrote several works on that and other branches of mathematics. He died in 1755, aged forty-seven.

GEMMA, or bud, in botany. See BOTANY. Buds, as well as bulbs, which are a species of buds, constitute that part of the herb called by Linnæus hybernaculum, or the winter-quarters of the future vegetable. Buds are placed at the extremity of the young shoots, and along the branches, being fixed by a short foot-stalk upon a kind of brackets, the remainder of the leaves, in the wings or angles of which the buds in question were formed the preceding year. They are sometimes placed single; sometimes two by two, either opposite or alternate; sometimes collected in greater numbers in whirls or rings. With respect to their construction, buds are composed of several parts artificially arranged. Externally, we find a number of scales that are pretty hard, frequently armed with hairs, hollowed like a spoon, and placed over each other like tiles. These scales are fixed into the inner plates of the bark, of which they appear to be a prolongation. Their use is to defend the internal parts of the bud; which, being unfolded, will produce, some flowers, leaves, and stipulæ; others, foot-stalks and scales. All these parts, while they remain in the bud, are tender, delicate, folded over each other, and covered with a thick clammy juice, which is sometimes resinous and odoriferous, as in the tacahamac tree. This juice serves not only to defend the more tender parts of the embryo plant from cold, the assaults of insects, and other external injuries; but likewise from excessive perspiration, which, in its young and infant state, would be very destructive. It is conspicuous in the buds of horse-chestnut, poplar, and willow-trees. See BOTANY.

GEMOTE, *n. s.* Sax. ȝemot, from metan, to meet (obsolete). A public meeting: as of the court, with the hundred, the nobles, &c. See FOLKMOTE.

GEMUND, an old and once free town of the empire of Germany, now subject to Wirtemberg. Its extent is considerable; but its population much thinner since the decay of its manufactures in cottons, plate, and jewellery, and does not exceed 5500. It is twenty-four miles south of Stutgard.

GENAP, or GENAPPE, a small town of South Brabant, in the Netherlands, on the Dyle. It was the scene of an action between some French and British cavalry, on the retreat of the French 17th of June, 1815, toward Waterloo; and of a great slaughter of the French by the Prussians on the 18th, after that memorable battle. Population 1200.

GENDARMERIE, in military affairs, was a select body of cavalry that took precedence of every regiment of horse in the French service, and ranked immediately after the king's household. The reputation of the gendarmerie was so great, and its services so well estimated by the king of France, that when the emperor Charles V. in 1552 sent a formal embassy to the court of Versailles, to request a loan of money, and the assistance of the gendarmerie to enable him to repulse the Turks, Francis I. returned the following answer:—'With respect to the first object of your mission,' addressing himself to the ambassador, 'I am not a banker; and with regard to the other, as my gendarmerie is the arm which supports my sceptre, I never expose it to danger, without personally sharing its fatigue and glory.' The uniform of the gendarmerie, as well as of the light cavalry, under the old French government, was scarlet, with facings of the same color. The coat was formerly more or less laced with silver, according to the king's pleasure. The waistcoat of buff leather, and the bandoulier of the same, silver-laced; the hat was edged with broad silver lace. The horse-cloths and holster-caps were red, and the arms of the captain embroidered on the corners of the saddle-cloths, and on the front of the holsters. The gendarmerie are now however little more than an armed police.

GENDARMES, SCOTS, were originally instituted by Charles VII. of France, about the middle of the fifth century, and formed a part of his guard; in which station also they acted under other princes. It was their prerogative to take precedence of all the companies of the gendarmerie of France; and, on particular occasions, they even preceded the two companies of the king's mousquetaires. The sons of the Scottish monarchs were the usual captains of this company; and, after Mary's accession to the throne, its command belonged to them as a right. Hence James VI. made a claim of it for his son prince Henry. This honor, and its emoluments, were also enjoyed by Charles I., and the next in command to this prince was Lewis Stuart, duke of Lenox. George Gordon, marquis of Huntley, succeeded him in 1624, and took the title of commander in chief when Charles I. mounted the English throne. It is not certain whether Charles II. was ever captain of this company; but it was conferred on his brother the duke of York, who was captain of the Scots gendarmes till 1667, when he resigned his commission into the hands of the French king. After that time no native of Great Britain enjoyed this command.

GEN'DER, *n. s.* Fr. *gendre ;* Lat. *genus.* A quality; but seldom used in this sense: difference of sex; a denomination given to nouns, from being joined to an adjective in this or that termination.

Our bodies are our gardens, to the which our wills are gardeners; so that if we will supply it with one *gender* of herbs, or distract it with many, the power and corrigible authority of this lies in our will. *Shakspeare.*

The other motive,
Why to a publick court I might not go,
Is the great love the general *gender* bare me. *Id.*

Cubitus, sometimes cubitum in the neutral *gender*, signifies the lower part of the arm on which we lean. *Arbuthnot.*

Ulysses speaks of Nausicaa, yet immediately changes the word into the masculine *gender*. *Broome.*

GENDER, in grammar, is a division of nouns, to distinguish the two sexes. This was the original intention of gender: but afterwards other words, which had no proper relation either to the one sex or the other, had genders assigned them, rather out of caprice than reason; which is at length established by custom. Hence genders vary according to the languages, or even according to the words introduced from one language into another. Thus, arbor, a tree, in Lat. is feminine, but arbre in Fr. is masculine; and dens, a tooth, in Lat. is masculine, but dent in Fr. is feminine, though the meaning is the same. The oriental languages frequently neglect the use of genders, and the Persian has none at all. The Latins, Greeks, &c., generally content themselves to express the different genders by different terminations; as bonus equus, a good horse; bona equa, a good mare, &c. But in English we frequently go further, and express the difference of sex by different words: as boar, sow; boy, girl; buck, doe; bull, cow; dog, bitch, &c. We have also feminines distinguished from the males by the variation of the termination of the male into ess; as are abbot, abbess; count, countess, &c.

GEN'DER, *v. a.* & *v. n.* Fr. *engendrer.* To produce; to beget; the act of generation or breeding.

Thou shalt not let thy cattle *gender* with a diverse kind. *Lev.* xix. 19.

Foolish and unlearned questions avoid, knowing that they do *gender* strife. 2 *Tim.* ii. 23.

A cistern for foul toads
To *gender* in. *Shakspeare. Othello.*

GENDRE (Gilbert Charles le), marquis of St. Aubin, counsellor in the parliament of Paris, and master of requests. He wrote several other works; but is chiefly distinguished by his Traité de l'Opinion, 9 vols., 12mo.; a curious performance, in which the author attempts to show, by historical examples, the powerful empire of fancy over the works of art and science. He died at Paris in 1746, aged fifty-six.

GENDRE (Louis le), a French historian, educated under the patronage of De Harlai, afterwards archbishop of Paris, became a canon and subchanter of the cathedral of Notre Dame. He published a life of his patron, and a valuable Histoire de la France, 3 vols., folio, Paris, 1718; reprinted in 8 vols. 12mo. This work includes a catalogue of the ancient and modern French historians, with criticisms on their writings; an able account of the manners and customs of the French in different ages, &c. &c. He was made abbot of Notre Dame de Claire Fontaine, in the diocese of Chartres, and died February 1st, 1733.

GENDRE (Adrian Marie Le), professor of mathematics at the Military school of Paris, member of the Académie des Sciences, &c., was first distinguished in 1787 in verifying the points placed between Dunkirk and Boulogne, with a view to compare the true position of the Paris and London observatories. Cassini and Mechain were also employed in this operation, and the means which they employed gave a much more exact result than any which had been before tried. In 1794 M. le Gendre published his Memoire sur les transcendantes elliptiques, and his Elemens de Géometrie. Le Gendre also made about this time many researches on the subject of the attraction of elliptical spheroids; and commenced others on heterogeneous spheroids. In 1774 he assisted de Prony to form his trigonometrical tables for the decimal division of the circle, and in 1795 was a member of the superintendancy of weights and measures. M. le Gendre was also a member of the Institute from the formation of that body; and was named under the imperial government counsellor for life of the university. On the re-establishment of the king he became, in 1815, member of the council for public instruction, and in 1816, conjointly with M. Poisson, examiner of the candidates for the Polytechnical school. He published, besides the above-mentioned works, Nouvelle Théorie de Paralleles; Nouvelles Méthodes pour la determination des Orbites de Cometes; Supplement à l'Essai sur la Theorie des nombres; Exercises de Calcul integral.

GENEA'LOGY, *n. s.* } Gr. γενεα and λογος.
GENEALOG'ICAL, *adj.* } That which pertains to
GENEAL'OGIST, *n. s.* } descents or families.

He who traces these descents. History of the regular succession in families: pedigree.

Thei schulden not teche otherwite neithir ghyue tent to fablis: and *genologies* that ben uncertain. *Wiclif.* 1 *Tim.* i.

The ancients ranged chaos into several regions; and in that order successively rising one from another, as if it was a pedigree or *genealogy*. *Burnet's Theory.*

GENEALOGY, is more particularly a series or succession of ancestors, or progenitors; or a summary account of the relations and kindred of a person, or family, both in the direct and collateral lines. In various chapters and military orders, it is required that the candidates produce their genealogy, to show that they are noble by so many descents. The genealogical degrees are usually represented in circles, ranged over, under, and aside of each other.

The ancients had similar tables, which they called stemmata, from a Greek word, signifying a crown, or garland. See CONSANGUINITY.

The Jews were anxious to preserve their genealogies entire and uninterrupted; and this care on their part affords an argument of considerable importance with respect to the accomplishment of those prophecies that pertain to the Messiah.

Accordingly, in their sacred writings, we find genealogies carried on for above 3500 years. It is observed (Ezra ii. 62) that such priests as could not produce an exact genealogy of their families were not permitted to exercise their functions. Josephus says that they had, in his nation, an uninterrupted succession of priests for 2000 years; that the priests were particularly careful to preserve their genealogies, not only in Judæa, but also in Babylonia and Egypt; and that, wherever they were, they never married below themselves, and had exact genealogical tables prepared from those authentic documents which were kept at Jerusalem, and to which they had recourse; and that, in all their wars, persecutions, and calamities, they always were diligent in securing those documents, and in renewing them from time to time. Jerome says (ad Tit. iii.) that the Jews know so perfectly the genealogies, that they can repeat all the names from Abraham to Zerubbabel, as easily as their own. Nevertheless, since the war of the Romans against the Jews, about thirty years after the death of our Saviour, and since their entire dispersion in the reign of Adrian, the Jews have lost their ancient genealogies; and perhaps there is not even one of the sacerdotal race who can produce authentic proofs of his genealogy. This circumstance has been alleged by Christian writers as a presumptive proof of the actual advent of the Messiah, whose genealogy, corresponding to ancient predictions, the Jews are no longer able to trace, and consequently of the truth of Christianity.

The most natural order of genealogical tables seems to be to place the common stock at the head of the table, and the several collateral descents and succeeding generations, each in a lower line appropriated to it; and not to make the order of generations to proceed from the left hand to the right, as is done by some. But every distinct generation should by all means be placed in a line, or space appropriated to itself; otherwise our ideas will be greatly confused. The order of birth in the same generation may easily be observed (as is done in some of our best tables) by placing the first-born to the left hand in the table, and the rest, according to the order of birth, to the right.

There is a variety of other relations, besides mere natural descent, of which it is very useful to have a clear idea, as the connexion by marriage, by adoption among the Romans, &c., by which different families are intermixed. And it is possible, by different kinds of lines, joining the names so connected, how remote soever, in the table of generation, to express all those relations without the use of words. But as the attempt to express them all by characters disfigures the table with a great variety of lines, many of them of considerable length, and extending themselves in every direction, it seems most convenient to express natural descent only by characters, and to subjoin to each name an account, in words, of all its other connexions, referring at most from one to another, by marks contrived for that purpose. This method Rapin has taken in the excellent genealogical tables in his History of England. Valuable tables of genealogy may be seen at the end of Petavius's Chronology.

GENERABLE, *adj.* Lat. *genero.* That which may be produced.

GEN'ERAL, *adj.*
GENERAL'ITY, *n. s.*
GEN'ERALLY, *adv.*
GEN'ERALNESS, *n. s.*
GEN'ERALTY, *n. s.*
GEN'ERAL, *n. s.*
GENERALISS'IMO, *n. s.*

Fr. *general;* Latin *generalis.* Here the root or origin and simple meaning of the word general is a whole as opposed to particulars; and under a great variety of modifications it preserves this meaning throughout; thus it is applied to things; when to persons, as general and generalissimo, it is an official term of honor given to those who have supreme command over one or more armies.

Flaterie is *generally* wrongful preising.
Chaucer, The Persones Tale.

Because the curiosity of man's wit doth with peril wade further in the search of things than were convenient, the same is thereby restrained unto such *generalities* as, every where offering themselves, are apparent to men of the weakest conceit. *Hooker.*

They, because some have been admitted without trial, made that fault general which is particular.
Whitgift.

I've been bold,
For that I knew it the most *general* way.
Shakspeare.

Neither my place, nor aught I heard of business,
Hath raised me from my bed; nor doth the *general* care
Take hold on me; for my particular grief
Ingluts and swallows other sorrows. *Id.*

I am not a woman to be touched with so many giddy fancies as he hath *generally* taxed their whole sex withal. *Id.*

Nor would we deign him burial of his men,
Till he disbursed at St. Colmeskill Isle
Ten thousand dollars to our *general* use. *Id.*

Necessity, not extending to the *generality*, but resting upon private heads. *Raleigh's Essays.*

Generally we would not have those that read this work of Sylva Sylvarum, account it strange that we have set down particulars untried. *Bacon.*

Symachus the orator in his dayes, to procure a *generall* toleration, used this argument, 'Because God is immense and infinite, and his nature cannot be perfectly known, it is convenient he should be as diversely worshipped, as every man shall perceive or understand. *Burton's Anatomy of Melancholy.*

In like sort amongst Papists, fasting at first was *generally* proposed as a good thing. *Id.*

Commission of *generalissimo* was likewise given to the prince. *Clarendon.*

Nor failed they to express how much they praised,
That for the *general* safety he despised
His own. *Milton's Paradise Lost*

The wall of Paradise upsprung,
Which to our *general* sire gave prospect large
Into his nether empire neighb'ring round. *Milton.*

The municipal laws of this kingdom are of a vast extent, and include in their *generalty* all those several laws which are allowed as the rule of justice and judicial proceedings. *Hale.*

Yet they by restless toil became at length
So proud and confident of their made strength,
That they with joy their boasting *general* heard
Wish then for that assault he lately feared. *Marvell.*

Pompey had deserved the name of great; and Alexander, of the same cognomination, was *generalissimo* of Greece. *Browne.*

They had with a *general* consent, rather springing by the *generalness* of the cause than of any artificial practice, set themselves in arms. *Sidney.*

A *general* is one that hath power to command an army. *Locke.*

In particulars our knowledge begins and so spreads itself by degrees to *generals*. *Id.*

A *general* idea is an idea in the mind, considered there as separated from time and place, and so capable to represent any particular being that is conformable to it. *Id.*

The *generals* on the enemy's side are inferior to several that once commanded the French armies. *Addison on the War.*

The war's whole art each private soldier knows,
And with a *general's* love of conquest glows. *Addison.*

I have considered Milton's Paradise Lost in the fable, the characters, the sentiments, and the language; and have shewn that he excels, in *general*, under each of these heads. *Id.*

The *generality* of the English have such a favourable opinion of treason, nothing can cure them. *Id.*

They publish their ill-natured discoveries with a secret pride, and applaud themselves for the singularity of their judgment, which has found a flaw in what the *generality* of mankind admires. *Id.*

Though what he learns he speaks, and may advance
Some *general* maxims, or be right by chance. *Pope.*

Generally speaking, they have been gaining ever since, though with frequent interruptions. *Swift.*

To conclude from particulars to *generals* is a false way of arguing. *Broome.*

Where the author speaks more strictly and particularly on any theme, it will explain the more loose and *general* expressions. *Watts.*

The knights oppressed with wounds and travel past,
Did soon retire, and now were near to fainting:
With that a winged post him speeded fast
The *general* with these heavy news acquainting:
He soon refreshed their hearts that 'gan to tire.
But, let our weary muse awhile respire:
Shade we our scorched heads from Phœbus' parching fire. *Fletcher's Purple Island.*

I mean only to say that ludicrous writing in *general* is extremely subject to the injuries of time: and that herefore the wit and humour of the ancient Greeks and Romans might have been far more exquisite than we at present have any positive reason to believe. *Beattie.*

Why *general*, if he hath no greater fault
In war than love, he had better lead the assault. *Byron.*

The second object was to profit by
The moment of the *general* consternation,
To attack the Turk's flotilla which lay nigh
Extremely tranquil anchored at its station. *Id.*

GENERAL, in military affairs, is an officer in chief, to whom the prince or senate of a country have judged proper to intrust the command of their troops. He holds this important trust under various titles: as captain-general in England and Spain; feldt-mareschal in Germany; or mareschal in France. In the British service the king is in his own proper right captain-general. He has ten aides-de-camp; every one of whom enjoys the brevet rank of full colonel in the army. Next to his majesty is the commander in chief. But the more general use of the word is with regard to the commander of an army in actual service in the field. The office of a general is to regulate the march and encampment of the army; in the day of battle to choose out the most advantageous ground; to make the disposition of the army; to post the artillery, and, where there is occasion, to send his orders by his aides-de-camp. At a siege he is to cause the place to be invested, to regulate the approaches and attacks, to visit the works, and to send out detachments to secure the convoy and foraging parties. In the day of battle, the station of a general is with the reserve, where he remains so situated, that he can see every thing which is going forward; and by means of his own observations, or the communications of his aides-de-camp, he is enabled to send reinforcements, as the exigencies of the conflict may require. For LIEUTENANT-GENERAL, MAJOR-GENERAL, BRIGADIER-GENERAL, &c., see their respective articles.

GENERAL, ADJUTANT, in the art of war, one who attends the general, assists in councils, and carries the general's orders to the army. He distributes the daily orders to the majors of brigade. He is likewise charged with the general detail of the duty of the army. The majors of brigade send every morning to the adjutant-general an exact return, by battalion and company, of the men of his brigade. In a day of battle he sees the infantry drawn up; after which he places himself by the general, to receive any orders which may regard the corps of which he has the detail. In a siege he orders the number of workmen demanded, and signs the warrant for their payment. He receives the guards of the trenches at their rendezvous, and examines their condition; he gives and signs all orders for parties. He has an orderly serjeant from each brigade of infantry in the line, to carry such orders as he may have occasion to send from the general.

GENERAL is also used for the chief of an order of monks; or of all the houses and congregations established under the same rule; as, the general of the Franciscans, Cistertians, &c.

GENERAL is also used for a particular march, or beat of drum; being the first which gives notice, commonly in the morning early, for the infantry to be in readiness to march.

GENERAL TERMS, among logicians, those which are made the signs of general ideas. See LOGIC and METAPHYSICS.

GENERALISSIMO is called also captain-general, and simply general. He commands all the military powers of a nation; gives orders to all the other general officers, and receives no orders himself but from the king. M. Balzac observes, that cardinal Richelieu first coined this word, of his own absolute authority, upon his going to command the French army in Italy.

GEN'ERANT, *n. s.*
GEN'ERATE, *v. a.*
GENERA'TION, *n. s.*
GEN'ERATIVE, *adj.*
GEN'ERATOR, *n. s.*
} Lat. *genero*. To cause; produce; beget or give life: the act of production: progeny; family; an age or period: the faculty of propagation or fruitfulness. In all these and similar meanings the radix is increase. The power or being by whose agency this is effected.

Great father he of *generation*
Is rightly cald, the author of life and light:
And his faire sister for creation

Ministreth matter fit, which tempred right
With heate and humour, breedes the living wight.
Spenser. Faerie Qucene.

Every where throughout all *generations* and ages of the Christian world, no church ever perceived the word of God to be against it. *Hooker.*

Y' are a dog.
—— Thy mother's of my *generation*: what's she, if I be a dog? *Shakspeare. Timon.*

The barb'rous Scythian,
Or he that makes his *generation* messes,
To gorge his appetite, shall to my bosom
Be as well neighboured. *Id. King Lear.*

A marvellous number were excited to the conquest of Palestine, which with singular virtue they performed, and held that kingdom some few *generations*.
Raleigh's History.

He gave to all, that have life, a power *generative*, thereby to continue their species and kinds. *Id.*

Sounds are *generated* where there is no air at all.
Bacon.

Seals make excellent impressions; and so it may be thought of sounds in their first *generation*: but then the dilatation of them, without any new sealing, shews they cannot be impressions. *Id.*

Those creatures which being wild *generate* seldom, being tame, *generate* often. *Id.*

The last of these vegetal faculties is *generation*, which begets another by means of seed, like unto itself, to the perpetual preservation of the species.
Burton. Anatomy of Melancholy.

Had I the power of creation
As I have of *generation*
Where I the matter must obey,
And cannot work plate out of clay,
My creatures should be all like thee,
'Tis thou should'st their idea be. *Cowley.*

God created the great whales, and each
Soul living, each that crept, which plenteously
The waters *generated* by their kinds. *Milton.*

He longer will delay, to hear thee tell
His *generation*, and the rising birth
Of nature, from the unapparent deep. *Id.*

Or find some other way to *generate*
Mankind. *Id. Paradise Lost.*

Some believe the soul made by God, some by angels, and some by the *generant*; whether it be immediately created or traduced hath been the great ball of contention. *Glanville's Scepsis.*

Imagination assimilates the idea of the *generator* into the reality in the thing engendered. *Browne.*

In grains and kernels the greatest part is but the nutriment of that *generative* particle, so disproportionable unto it. *Id.*

If we deduce the several races of mankind in the several parts of the world from *generation*, we must imagine the first numbers of them, who in any place agree upon any civil constitutions, to assemble as so many heads of families whom they represent.
Temple.

Whatever *generates* a quantity of good chyle, must likewise *generate* milk. *Arbuthnot.*

If there hath been such a gradual diminution of the *generative* faculty upon the earth, why was not there the like decay in the production of vegetables?
Bentley.

And if one lady's slip could leave a crime on
All *generations*, I should like to know
What pedigree the best would have to show?
Byron.

And when his bones are dust, his grave a blank,
His station, *generation*, even his nation,
Become a thing, or nothing, save to rank
In chronological commemoration,
Some dull MS. oblivion long has sank,
One gravenstone found in a barrack's station
In digging the foundation of a closet
May turn his name up as a rare deposit.
Id. Don Juan.

To GENERATE, in music, is used to signify the operation of that mechanical power in nature, which every sound has in producing one or more different sounds. Thus any given sound, however simple, produces, along with itself, its octave, and two other sounds extremely sharp, viz. its twelfth above, that is to say, the octave of its fifth; and the other the seventh above, or, in other words, the double octave of its third major. Whether we suppose this procreation of sounds to result from an aptitude in the texture and magnitude of certain particles in the air, for conveying to our ears vibrations that bear those proportions one to another, as being determined at once by the partial and total oscillations of any musical string; or from whatever economy of nature we choose to trace it; the power of one sound thus to produce another, when in action, is said to generate. The same word is applied, by signior Tartini, and his followers, to any two sounds which, simultaneously heard, produce a third.

GENERATED, or GENITED, *part. adj.* is used, by some mathematical writers, for whatever is produced, either in arithmetic, by the multiplication, division, or extraction of roots; or, in geometry, by the invention of the contents, areas, and sides; or of extreme and mean proportionals, without arithmetical addition and subtraction.

GENERATING LINE, or FIGURE, in geometry, is that which, by its motion of revolution, produces any other figure, plane or solid. See GENESIS.

GENERATION is also used, though somewhat improperly, for genealogy, or the series of children issued from the same stock. Thus the gospel of St. Matthew commences with the book of the generation of Jesus Christ, &c. The latter and more accurate translators, instead of generation use the word genealogy.

GENERATION, in mathematics, is used for the formation or production of any geometrical figure; as of equations, curves, solids, &c.

GENERATION, in physiology. See ANATOMY.

GENERATION OF FISHES. See ICHTHYOLOGY, and ZOOTOMY.

GENERATION OF INSECTS. See ENTOMOLOGY and ZOOTOMY.

GENERATION OF PLANTS. See BOTANY.

GENERATOR, in music, signifies the principal sound or sounds by which others are produced. Thus the lowest C for the treble of the harpsichord, besides its octave, will strike an attentive ear with its twelfth above, or G in alt, and with its seventeenth above, or E in alt. The C, therefore, is called their generator, the G and E its products or harmonics. But in the approximation of chords, for G, its octave below is substituted, which constitutes a fifth from the generator, or lowest C; and for E, is likewise substituted its fifteenth below, which, with the above mentioned C, forms a third major. To the lowest notes, therefore, exchanged for these in alt by

substitution, the denominations of products or harmonics are likewise given, whilst the C retains the name of their generator. But still, according to the system of Tartini, two notes in concord, which when sounded produce a third, may be termed the concurring generators of that third.

GENER'ICAL, *adj.* } Fr. *generique*; Lat. *genus*. That which comprehends the genus without reference to the species.
GENER'IC, *adj.*
GENER'ICALLY, *adv.*

The word consumption being applicable to a proper, and improper to a true and bastard consumption, requires a *generical* description quadrate to both.
Harvey on Consumptions.

These have all the essential characters of sea-shells, and shew that they are of the very same specifick gravity with those to which they are so *generically* allied.
Woodward.

Though wine differs from other liquids, in that it is the juice of a certain fruit; yet this is but a general or *generick* difference; for it does not distinguish wine from cyder or perry; the specifick difference of wine, therefore, is its pressure from the grape.
Watts's Logick.

GENERICAL NAME, in natural history, the word used to signify all the species of natural bodies, which agree in certain essential and peculiar characters, and therefore comprehending all of the same genus, family or kind; so that the word used as the generical name equally expresses every one of the genus, and other words expressive of the peculiar qualities or figures of each species are added, in order to denote them distinctly, and make up what is called the specific name. See BOTANY and ZOOLOGY.

GEN'EROUS, *adj.* } Fr. *generosité*; Lat. *generositas*. The disposition or act of liberality and magnanimity; courage and strength in animals; nobility of birth, mind, or heart; and the exercise of these several qualities.
GENEROS'ITY, *n. s.*
GEN'EROUSLY, *adv.*
GEN'EROUSNESS, *n. s.*

Lo here Semiramis, the Quene of grete Babilon,
The moste *generous* gem and the floure of lovily favor;
Whose excellent power from Mede unto Septentrion,
Florished in her regally, as a mightie conqueror.
Chaucer. The Nine Ladies Worthie.

A cup of *generous* wine to those whose minds are still or motionless, is, in my opinion, excellent physic.
Burton.

So the imperial eagle does not stay
Till the whole carcase he devour,
As if his *generous* hunger understood
That he can never want plenty of food,
He only sucks the tasteful blood. *Cowley.*

Having in a digestive furnace drawn off the ardent spirit from some good sack, the phlegm, even in this *generous* wine, was copious. *Boyle.*

A *generous* virtue of a vigorous kind,
Pure in the last recesses of the mind. *Dryden.*

When all the gods our ruin have foretold,
Yet *generously* he does his arms withhold. *Id.*

It would not have been your *generosity*, to have passed by such a fault as this. *Locke.*

Can he be better principled in the grounds of true virtue and *generosity* than his young tutor is?
Id. on Education.

When from his vest the young companion bore
The cup the *generous* landlord owned before,
And paid profusely with the precious bowl
The stinted kindness of this churlish soul. *Parnell.*

Actæon spies
His opening hounds, and now he hears their cries
A *generous* pack. *Addison.*

Is it possible to conceive that the overflowing *generousness* of the divine nature would create immorta beings with mean or envious principles?
Collier on Kindness.

The *generous* critick fanned the poet's fire,
And taught the world with reason to admire. *Pope.*

She speaks, behaves, and acts, just as she ought,
But never, never reached one *generous* thought. *Id.*

That *generous* boldness to defend
An innocent or absent friend. *Swift.*

Those who in southern climes complain,
From Phœbus' rays they suffer pain,
Must own that pain is well repaid,
By *generous* wines beneath a shade. *Id.*

GENEROSITY, the name of an order of knighthood, established in 1685, by Frederick III., when elector of Brandenburg. The badge was a gold cross of eight points enamelled *azure*, bearing in the centre La Genérosité, and pendent to a blue riband.

GENESEE, a level county of the state of New York, North America, erected in 1802 from Ontario county, and situated between 42° 30′ and 43° 22′ N. lat. It is bounded by that county on the east, Lake Ontario on the north, Allegany county, and a small angle of Cataraugus county, on the south, and on the west by Niagara county. Its area is reckoned at 1743 square miles. It is generally fertile and has but little of waste. The alluvial flats on the shores of the river are distinguished for their superior richness. The chief town is Batavia.

GENESEE, a river of the United States, which rises in Pennsylvania, and runs through the western part of the state of New York into Lake Ontario, between Gates and Boyle. At its entrance is a harbour of this name. Within five miles of its mouth are falls of seventy-five and ninety-six feet in height, from which the river is navigable for boats seventy miles, when other falls occur from sixty to ninety feet in height, one mile apart, south of Leicester.

GENESIS, *n. s.* Gr. γενεσις. The first book of Moses, so called because it treats of the origin of all things.

GENESIS, the first book of the Old Testament, contains the history of the creation, and the lives of the first patriarchs. This book stands at the head of the Pentateuch. Its author is held to be Moses: it contains the relation of 2369 years, viz. from the beginning of the world to the death of Joseph. The Hebrews called it Bereschith, בראשית, in the beginning, because beginning with that word. The Greeks gave it the name Γενεσις, q. d. production or generation, because it begins with the history of the production, or generation, of all beings. This book, besides the history of the creation, contains an account of the original innocence and fall of man; the propagation of mankind; the general defection and corruption of the world; the deluge; the restoration of the world; the division and peopling of the earth; and the history of the first patriarchs to the death of Joseph. The human means by which Moses might obtain information on the subject of the fall, &c., are worthy of more notice than a superficial reader would observe, for the account of so

many years had to travel through but few hands; for from Adam to Noah there was one man, viz. Methuselah, who lived so long as to see them both: in like manner Shem conversed with Noah and Abraham; Isaac with Abraham and Joseph, from whom the facts recorded in this book might easily be conveyed to Moses by Amram, who was contemporary with Joseph.

GENESIS, in geometry, denotes the formation of a line, plain, or solid, by the motion or flux of a point, line or surface. See FLUXIONS. The genesis or formation, e. g. of a globe or sphere, is conceived by supposing a semicircle to revolve upon a right line, drawn from one extreme thereof to the other, called its axis, or axis of circumvolution: the motion or revolution of that semicircle is the genesis of the sphere, &c. In the genesis of figures, &c., the line or surface that moves is called the describent; and the line round which, or according to which, the revolution or motion is made, the dirigent.

GE'NET, *n. s.* Fr. The word originally signified a horseman, and perhaps a gentleman or knight. A small-sized, well-proportioned, Spanish horse.

You'll have your nephews neigh to you; you'll have coursers for cousins, and *genets* for germanes. *Shakspeare. Othello.*

He shews his statue too, where placed on high,
The *genet* underneath him seems to fly. *Dryden.*

It is no more likely that frogs should be engendered in the clouds, than Spanish *genets* be begotten by the wind. *Ray.*

GENETHLI'ACAL, *adj.* } Gr. γενεθλη. Whatever refers to calculating nativities from the stars which were predominant at birth.
GENETH'LIACS, *n.s.*
GENETHLIAT'IC, *n. s.*

The night immediately before he was slighting the art of those foolish astrologers, and *genethliacal* ephemerists, that used to pry into the horoscope of nativities. *Howel's Vocal Forest.*

The truth of astrological predictions is not to be referred to the constellations; the *genethliaticks* conjecture by the disposition, temper, and complexion of the person. *Drummond.*

GENETHLIACI, in astrology, from γενεθλη, origin, generation, or nativity, persons who erect horoscopes, and pretend to foretell what shall befall a man by means of the stars which presided at his nativity. The ancients called them chaldæi, and mathematici. Hence the several civil and canon laws, made against mathematicians, only respect the genethliaci, or astrologers. They were ordered to be expelled Rome by a formal decree of the senate; and yet found so much protection from the credulity of the people, that they remained therein unmolested. Hence an ancient author speaks of them as hominum genus, quod in civitate nostra semper et vetabitur et retinebitur.

GENESIUS (Josephus), one of the Byzantine historians of the tenth century. He flourished about the year 940, and wrote, by order of Constantine Porphyrogenitus, a history of Constantinople, in four books: it extends from Leo the Armenian, to Basilius the Macedonian. It was imperfectly printed in 1733 at Venice, by Pasquali, in his edition of the Byzantine historians.

GENE'VA, *n. s.* A corruption of French *genevre*; It. *ginepro*; Lat. *juniperus*, a juniper-berry; a spirit distilled from the juniper-berry.

The best *geneva* we now have, is made from an ordinary spirit, distilled a second time with an addition of some juniper-berries; but the original liquor of this kind was prepared in a very different manner. *Dr. A. Rees.*

GENEVA, a city, and the capital of a canton of Switzerland, is situated on the western shore of the lake of that name, on the confines of France and Savoy. The Rhone has here its efflux from the lake and divides Geneva into three parts, the city, the town or quarter of St. Gervais, and the island.

Its situation and surrounding scenery (among which Mont Blanc rises pre-eminent), with its political history, and literary fame, render Geneva one of the most interesting cities in Europe. The lofty houses towering above the walls, and enclosed by the verdure of the glacis, give to the distant prospect the appearance of an assemblage of country seats, encompassed with gardens and lawns. On entering the city, however, the streets are found not regular, and the principal one is encumbered with a row of shops on each side, between the road and a sheltered foot-path. But the upper town contains many elegant houses. The public buildings of note are the college, the cathedral, the hotel de ville, the public library, the theatre, the hospital, and the arsenal. The library was founded at the Reformation, and contains about 50,000 volumes. The hospital, which is very extensive, was formerly a monastery. The town-house is chiefly remarkable for the manner of ascending to its upper floors, which is by an inclined plane, instead of a staircase. The city is supplied with water from the Rhone, by a machine which raises it to the height of 100 feet.

The Genevese, partaking early of the benefits of the Reformation, exhibit, very similarly to our Scottish neighbours, the advantages of universal education and industry. The morals of the lowest orders are in general exemplary, and the traveller is not here shocked by those objects of distress which infest almost every other continental city. Wages are on the whole high; and when a family is really unable to support itself by its own labor, it receives relief from various well directed funds. On the other hand, the excess of luxury is discouraged by sumptuary laws, and it is only since 1764 that the city has contained a theatre. Watch-making is the staple manufacture, and it is said to employ 7000 persons; manufactures of silk, woollen, muslin, chintz, and porcelain are also carried on; as well as the making of mathematical, surgical, and other instruments, jewellery, toys, &c. The richer citizens are merchants of extensive agency, and conduct money operations in all the public funds of Europe.

Literary societies abound among the citizens, and a decided taste for reading is prevalent in both sexes. Several private individuals possess good collections of natural history. The principal are those of De Luc, Boissier, and Saussure, the son of the traveller of that name: they are shown to strangers with great readiness. Besides the public library, there is a botanical garden, a museum of paintings, a public school, and a university. The school is conducted by eleven masters, and the university by twenty-two

professors; the number of students at the latter amounting generally to 1000.

The Physical and Natural History Society of Geneva was founded in 1790, by a number of those distinguished individuals who devoted themselves to the pursuits of science. The principal papers read at their meetings found a place in the Philosophical Transactions, in the Memoirs of the Institute, or in those of the Academies of Berlin and Turin; while those which were of a less elaborate nature were transmitted to the popular scientific journals of the day. In consequence, however, of the deliverance of Geneva from a foreign yoke, all the public institutions received a vigorous impulse; and the Physical Society, strengthened with an accession of members, as well as of zeal, has of late found itself in a situation to print its own Memoirs.

Calvin and Casaubon distinguished Geneva by their residence; it also ranks among its illustrious men Rousseau, Tronchin, Bonnet, Saussure, Mallet de Pan, Necker, Berenger, Picot, Pictet, Boissier, and Sismondi. In the delightful environs of this city are Ferney, once the residence of Voltaire; and Copet, the retreat of M. Necker, and of his accomplished daughter the baroness de Staël.

In the time of Charlemagne the city and territory of Geneva made part of his empire; and, under his successors, they became subject to the German emperors. By reason of the imbecility of these princes, however, the bishops of Geneva acquired such authority over the inhabitants, that the emperor had no other means of counterbalancing it than by augmenting the privileges of the people. In those barbarous ages also the bishops and counts had constant disputes, of which the people took the advantage; and by combining sometimes with one, and sometimes with the other, they obtained an extension of their privileges from both. The house of Savoy at length purchased the territory, and succeeded the counts with additional power. The bishops and people, therefore, united to resist their encroachments: and, during this period, the government was strangely complicated, by the various pretensions of the three parties. The counts of Savoy, however, had at last the address to dissolve the union between the bishops and citizens, by procuring the episcopal see for their brothers, and illegitimate children; by which means their power became gradually so extensive, that towards the commencement of the sixteenth century, Charles III. of Savoy, though the government was accounted republican, obtained an almost absolute authority over the people, and exercised it in a most unjust and arbitrary manner. Thus violent commotions took place; and the citizens became divided into two parties, one of which, viz. the patriots, were styled Eidgenossen, or confederates; the partisans of Savoy being disgraced by the appellation of Mammelucs, or slaves. The true period of Genevan liberty may therefore be considered as commencing with the treaty concluded with Berne and Fribourg in 1526; in consequence of which the duke was soon deprived of his authority, the bishop driven from the city, and the reformed religion and a republican form of government introduced. A long war commenced with Savoy on this account; but the Genevans proved superior to their enemies, partly by their own bravery and partly by the assistance of the inhabitants of Berne.

In 1584 the republic concluded a treaty with Zurich and Berne, by which it became allied to the Swiss cantons. The house of Savoy made their last attempt against Geneva in 1602, when the city was treacherously attacked in the night time during a profound peace; 200 soldiers had scaled the walls, and got into the town before any alarm was given; but they were repulsed by the desperate valor of a few citizens, who perished in the encounter. A petard had been fastened to one of the gates by the Savoyards; but the gunner was killed before it could be discharged. The war occasioned by this treachery was next year concluded by a solemn treaty, which has ever since been observed on both sides; though the independence of Geneva was never formally acknowledged by the king of Sardinia till 1754. The restoration of tranquillity from without, in consequence of the above treaty, was, however, soon followed by the flames of internal discord, so common in popular governments; so that, during the whole of the seventeenth century, the history of Geneva affords little more than an account of the struggles betwixt the aristocratical and popular parties. About the beginning of the eighteenth century the power of the grand council was become almost absolute; but, to restrain its authority, an edict was procured in 1707 by the popular party, enacting that every five years a general council of the citizens and burghers should be summoned to deliberate upon the affairs of the republic. In consequence of this law, a general assembly was convened in 1712; and the very first act of that assembly was to abolish the edict by which they had been convened. A proceeding so extraordinary can scarcely be accounted for on the principles of popular fickleness and inconstancy. Rousseau, in his Miscellaneous Works, ascribes it to the artifices of the magistrates, and the equivocal terms marked on the billets then in use. For the question being put, 'Whether the opinion of the council for abolishing the periodical assemblies should pass into a law?' the words approbation or rejection, put upon the billets by which the votes were given, might be interpreted either way. Thus, if the billet was chosen on which the word approbation was written, the opinion of the councils which rejected the assemblies was approved; and by the word rejection, the periodical assembly was rejected of course. Hence several of the citizens complained that they had been deceived, and that they never meant to reject the general assembly; but only the opinion of the councils.

In consequence of the abolition of the general assemblies, the power of the aristocratical party was greatly augmented, till at length the inhabitants, exerting themselves with uncommon spirit and perseverance, found means to limit the power of the magistrates, and enlarge their own rights. In 1776, as Mr. Coxe informs us, the government might be considered as a mean betwixt that of the aristocratical and popular cantons of Switzerland. The members of the senate, or little

council of twenty-five, enjoyed in that capacity several very considerable prerogatives. By them half the members of the great council were named; the principal magistrates were supplied from their own body; they convoked the great and general councils, deliberating previously upon every question which was to be brought before these councils. They were vested also with the chief executive power, the administration of finances, and had, in a certain degree, the jurisdiction in civil and criminal causes. Most of the smaller posts were likewise filled by them, and they enjoyed the sole privilege of conferring the burghership. These, and other prerogatives, however, were balanced by those of the great council, and the privileges of the general council. The former had a right to choose the members of the senate from their own body; receiving appeals in all causes above a certain value, pardoning criminals, &c., besides which they had the important privilege of approving or rejecting whatever was proposed by the senate to be laid before the people. The general council, or assembly of the people, was composed of the citizens and burghers of the town, their number, in general, amounting to 1500, though usually not more than 1200 were present; the remainder residing in foreign countries, or being otherwise absent. They met twice a year, chose the principal magistrates, approved or rejected the laws and regulations proposed by the other councils, imposed taxes, contracted alliances, declared war or peace, and nominated half the members of the great council, &c. But the principal check to the power of the senate arose from the right of re-election, or the power of annually expelling four members from the senate at the nomination of the syndics or principal magistrates, and from the right of representation. The syndics were four in number, chosen annually from the senate by the general council; and three years elapsed before the same members could be again appointed. In choosing these magistrates, the senate appointed from its own body eight candidates, from whom the four syndics were to be chosen by the general council. The latter, however, had it in their power to reject not only the first eight candidates, but also the whole body of senators in succession; in which case four members of the senate retired into the great council, and their places were filled by an equal number from that council. As to the power of representation, every citizen had the privilege of applying to the senate to procure a new regulation in this respect, or of remonstrating against any act of the magistracy. To these remonstrances the magistrates were obliged to give an explicit answer; for if a satisfactory answer was not given to one, a second was immediately presented. The representation was made by a greater or smaller number of citizens, according to the importance of the point in question. Since 1776, however, several changes have taken place. This right of re-election, which the aristocratical party were obliged to yield to the people in 1768, soon proved very disagreeable, being considered by the former as a kind of ostracism; for which reason they caught at every opportunity of procuring its abolition. They were now distinguished by the title of negatives, while the popular party had that of representants; and the point in dispute was the compilation of a new code of laws. This measure the negatives opposed, as supposing that it would tend to reduce their prerogatives; while, on the other hand, the representants used their utmost endeavours to promote it, in hopes of having their privileges augmented by such means. At last, in January 1777, the negatives were obliged to comply with the demands of their antagonists; and a committee for forming a new code of laws was appointed by the concurrence of the little, great, and general councils. The committee was to last for two years, and the code to be laid before the three councils, for their joint approbation or rejection. A sketch of the first part of the code was presented to the little and great councils on Sept. 1st, 1779, that they might profit by their observations before it was presented to the general council. Great disputes arose: and at length it was carried by the negatives that the code should be rejected, and the committee dissolved. The opposite party complained of this as unconstitutional, and violent disputes ensued; the issue of which was, that the great council offered to compile the code, and submit it to the decision of the public. This did not give satisfaction to the popular party, who considered it as insidious: the contentions revived with more fury than ever, until at length the negatives supposing, or pretending to suppose, that their country was in danger, applied to the guarantees France, Zurich, and Berne, intreating them to protect the laws and constitution. This was productive of no good effect; so that the negatives found no other method of gaining their point than by sowing dissention among the different classes of inhabitants. The natives were discontented and jealous on account of many exclusive privileges enjoyed by that class named citizens: they were besides exasperated against them for having, in 1770, banished eight of the principal natives, who pretended that the right of burghership belonged to the natives as well as to the citizens, and demanded that this right should be gratuitously conferred instead of being purchased. The negatives, in hopes of making such a considerable addition to their party, courted the natives, by all the methods they could think of, promising, by a public declaration, that they were ready to confer upon them those privileges of trade and commerce which had hitherto been confined exclusively to the citizens. The designs of the negatives were likewise openly favored by the court of France, and despatches were even written to the French resident at Geneva, to be communicated to the principal natives who sided with the aristocratic party. The attorney-general, conceiving this mode of interference to be highly unconstitutional, presented a spirited remonstrance; by which the French court were so much displeased, that they procured his deposition from his office; and thus their party was very considerably increased among the natives. The representants endeavoured to conciliate the favor of the same party, and even promised what they had hitherto opposed in the strongest manner, viz. to facilitate the acquisition of the burgher-

ship, and to bestow it as the recompense of industry and good behaviour. Thus two parties were formed among the natives themselves; and the dissensions becoming every day worse and worse, a general insurrection took place on the 5th of February 1781.

The representants seized the avenues of the city, and though they agreed to an augmentation of the commercial privileges of the natives, they absolutely refused to fulfil their promise of awarding the burghership to them. Alarmed, however, at the number and threats of the natives, and prevailed upon by the deputies from Zurich and Berne, who had been sent to conciliate the differences, they laid down their arms; and this was no sooner done, than the same deputies declared the edict in favor of the natives to be null and illegal. The senate declared themselves of the same opinion; and maintained, that the assent of the councils had been obtained only through fear of the representants who were under arms, and whom none at that time durst oppose. The representants, exasperated by this treacherous proceeding, presented another remonstrance on the 18th March, 1782, summoning the magistrates once more to confirm the edict; but a month afterwards, received the laconic answer, that 'the government was neither willing nor able to confirm it.' At last, however, but not until a universal tumult had ensued, and the body of the citizens had deposed several members of both councils, the great council executed the edict for conferring the burghership upon a number of the natives; and appointed a committee of safety, composed of eleven members, with considerable authority.

The conciliation of the opposite party was now clearly the course of safety; for the French and Sardinians had both advanced towards the city to support its pretensions. But the French general, Jaucourt, proposed such humiliating terms to those in power, that it was unanimously determined to resist his entrance. The fortifications were strengthened; at the hour in which it was expected that an attack would begin, the ramparts were filled with defenders; and though the most zealous of the popular party had calculated only on 3000, upwards of 5000 appeared in the public cause. The French general, however, justly alarmed for the prisoners, who were now in imminent danger, again prolonged the period proposed for the capitulation. By these repeated delays, the ardor of the defendants began to abate. At last the committee of safety themselves, who had so strenuously declared for hostilities, entirely changed their mind. A new council, composed of about 100 citizens, was formed; in which the chiefs of the popular party, by various manœuvres, first intimidating, and then endeavouring to persuade the members, of the necessity of surrendering, found means, first to take the thoughts of the people entirely off from the defence of the city, and then to engage them in a scheme of general emigration. A declaration was now drawn up to be delivered to the syndics with the keys of the city; the chiefs summoned the principal officers from their posts, ordered the cannon of several batteries to be rendered unfit for service, and at last took care of themselves by quitting the town, followed by large bodies of the people; so that when the Sardinians entered it in the morning, they found it almost deserted. This was followed by the restoration of the former magistrates, a complete subjection of the popular party, and the establishment of a military government.

The changes which took place on this occasion, were: 1. An abolition of the right of re-election. 2. The abolition of that right by which the general council nominated half the vacancies in the great council. 3. The right of remonstrating was taken from the citizens at large, and vested in thirty-six adjuncts, who might be present in the great council the first Monday of every month. 4. The introduction of the grabeau, or annual confirmation of the members of the senate and of the great council, vested entirely in the latter. By this law, part of the authority both of the senate and general council was transferred to the great council; and, by subjecting the senate to this annual revision, its power was greatly lessened, and it was made, in fact, dependent upon the general council. 5. The circles or clubs in which it was customary to convene the citizens, and all public assemblies whatever, were prohibited: and so rigorously was this carried into execution, that even the Society of Arts was forbidden to meet. 6. The militia were abolished; firing at marks, even with bows and arrows, was prohibited, and the town, instead of being guarded by its own citizens, was now put under the care of 1000 foreign soldiers, whose colonel and major were both to be foreigners. These troops were to take an oath of fidelity to the republic, and of obedience to the great council and the committee of war; but were under the immediate command and inspection of the latter, and subject to the superior control of the former. 7. No person was permitted to bear arms, whether citizen, native, or inhabitant. It was not to be expected, that this constitution would be agreeable to people who had such a strong sense of liberty, and had been accustomed to put such a value upon it as the Genevans. But after the public resentment had time to subside, most of those who fled at first, returned; and, in the opinion of Mr. Coxe, not more than 600 finally left their country, on account of the revolution in 1782.

Above 1000 persons, however, of both sexes, applied to the earl of Temple, then lord lieutenant of Ireland, expressing a desire to settle in that kingdom: and the proposal met with such general approbation, that the Irish parliament voted £50,000 towards defraying the expenses of their journey, and affording them a proper settlement. Lands were purchased for £8000 near Waterford; part of New Geneva was actually completed at the expense of £10,000; a charter was granted with very considerable privileges; the standard of gold was altered for the accommodation of the watch manufacturers; and the foundation of an academy laid upon a useful and liberal plan. Several Genevans landed in Ireland, in July 1783; but, when the nation had expended nearly £30,000 on the scheme, it was sud-

denly abandoned by all parties. Several of the emigrants finally settled at Constance and at Brussels.

In 1789 the people again rose on the magistracy, dissatisfied with a new regulation respecting the price of bread. The soldiers of the city on the 29th of January were driven from their posts and disarmed, while the gates were seized by the people. The solicitor-general at this time advocated the ancient liberties of the people, urging for them, however, those moderate demands which were received with universal satisfaction. A new edict of pacification was now published, under the title of Modifications à l'Edition de 1782, and approved by the senate, great council, and general council. The sons of the principal negatives frequented the circles of the burghers; and the magistrates obtained the confidence of the people, by dismissing the military, evacuating the barracks, and devoting them to the use of the university and public library. In a word, the constitution established in 1789, became a just medium between the too democratic form established in 1768, and the too aristocratic one of 1782. In 1798, however, the popular and aristocratic parties were both destined to feel the dire effects of the revolutionary principles of France, and their contiguity to that political volcano. The French had always actively promoted the civil dissensions of Geneva, and, when the power and energy of the country was by these means so completely reduced that it was unable to defend itself against foreign encroachment, they seized upon the city, and annexed it this year, sans ceremonie, to the territory of the republic.

In 1813 the willingness of the inhabitants to shake off the yoke of France was abundantly manifest; and on the Austrians under general Bubna entering the city the restoration of the old republic was to their great joy proclaimed. In September of the following year the diet admitted Geneva into the Swiss confederation. A constitution was framed for its future government in which it was declared that 'no patricians or privileged classes are acknowledged by the state, but that all the Genevese are equal before the law,' and the public affairs were vested in the hands of a great council of 250 members, and a smaller council of twenty-eight, the latter being the executive. The late treaties also augmented the territory of the republic to an area of 120 square miles, with a population of 25,000, exclusive of the citizens. The canton furnishes to the Swiss confederation 600 men, and nearly £1000 sterling. The soil is gravelly, and not very fertile, but it is remarkably well cultivated, and the climate is salubrious, though cold. Geneva is forty-two miles north of Chamberry and seventy north-east of Lyons.

GENEVA, LAKE OF. This lake, anciently called Lemanus (whence the name of the late French department, Lac Leman), is in the shape of a crescent; along the concave side of which Mr. Coxe travelled fifty-four miles. Switzerland forms the concave, and Savoy the convex part: the greatest breadth being about twelve miles, and its greatest depth about 1000 feet. The country on the side of Mont Blanc is full of high and craggy mountains; but from Geneva to the environs of Lausanne it slopes to the margin of the lake, and is very rich and fertile. The banks rise considerably in the neighbourhood of Lausanne, and form a most beautiful terrace, with a rapid descent a few miles beyond the town. A plain begins in the neighbourhood of Vevay, which continues for a great way beyond the end of the lake, but contracts towards the water by the approach of the mountains. The lake itself appears at a distance of a beautiful blue color, and the water is very clear and and transparent. Near Geneva the coast abounds with pebbles; between that city and Lausanne it is sandy; from thence to Chillon it is bounded by hard calcareous rocks; and the extremity of the shore is a marsh formed by mud collected from the Rhone. The greatest depth of this lake, found by M. de Luc, is 160 fathoms. Here the birds called tippet grebes appear in December; but retire in February to other places where they breed, and make floating nests of reeds, as the lake of Geneva affords none. This lake, like all others situated between mountains, is subject to sudden storms. The Rhone runs through its whole extent from its east to its south-west extremity. It is never frozen. De Saussure published a full account of its natural history, and notices the remarkable influence of electrical clouds on its surface.

GENEVA, or GIN, is an ordinary malt spirit, distilled a second time, formerly with the addition of some juniper berries. The berries were added to the malt in the grinding; so that the spirit thus obtained was flavored with the berries from the first, and exceeded all that could be made by any other method. At present, they leave out the berries entirely, and give their spirits a flavor by distilling them with a proper quantity of oil of turpentine; which, though it nearly resembles the flavor of juniper-berries, has none of their valuable virtues.

GENEVIEVE (St.), the patroness of the city of Paris, flourished in the end of the fifth century, and died A. D. 512. Five years after her death, Clovis erected the church of St. Genevieve, under the name and invocation of St. Peter, where her relics were long said to be preserved, her shrine visited, and her image carried, with great processions and ceremonies.

GENEVIEVE (St.), FATHERS OR RELIGIOUS OF, a congregation of regular canons, established in France, in the seventeenth century. It was a reform of the Augustine canons, begun by St. Charles Faure, in the abbey of St. Vincent de Senlis, in 1618. In 1634 the abbey was made elective; and a general chapter, composed of the superiors of fifteen houses, who had received the reform, chose F. Faure coadjutor of the abbey of St. Genevieve, and general of the congregation. It increased very much, and consisted of above 100 monasteries; in some of which the religious were employed in the administration of parishes and hospitals; and in others, in the instruction of ecclesiastics. It took its name from the abbey of St. Genevieve, which was the chief of the order, and whose abbot was the general.

GENEVIEVE (St.), a district and town of the

Missouri territory, in North America, bounded south-east by Apple Creek, north by the Merimack river, north-east by the Mississippi. Upon the latter it extends upwards of 100 miles. Its limits to the west are indefinite. The land is various, and perhaps less fertile than some of the neighbouring districts. It is rich, however, in minerals, particularly lead and salt. The town extends itself back upon ground considerably more elevated than the river. On an elevation in the rear of the town a handsome stone building has been erected for an academy, which commands a fine prospect. This town has a considerable trade, being a place of depôt for the lead obtained from the famous mines on the Maramеck, and also the store-house from which those employed in working in the mines obtain their principal supplies. The mines are about fifty miles west of this town, and are so rich that 100 lbs. of the ore will yield eighty or ninety of fine lead. Inhabitants about 1500. The produce under the present management is about 100 tons annually.

GENEVIEVE BAY, a bay on the coast of Newfoundland, in the straits of Belleisle, twenty miles north of St. John's Bay.

GENEVOIS, a province of Savoy, bounded on one side by a part of the French frontier, on another by Savoy Proper. It lies to the southward of Geneva, and came to the house of Savoy in the fifteenth century. Its surface is mountainous, but cultivated with great and well-rewarded care. It belonged to France from 1793 to 1815, forming a part of the department of Mont Blanc. Population 70,000.

GENEVRE, MONT, a celebrated mountain of the Alps, the boundary between Piedmont and France. Its altitude is about 6000 feet above the level of the sea; but the top, on which is a village and monastery, is of comparatively mild temperature. It is nine miles from Briançon.

GE'NIAL, *adj.* } Lat. *genialis*. That which
GE'NIALLY, *adv.* } contributes to propagation; support; mental endowments or cheerfulness.

Nor will the light of life continue long,
But yields to double darkness, night at hand;
So much I feel my *genial* spirits droop. *Milton.*
Higher of the *genial* bed by far,
And with mysterious reverence I deem. *Id.*

Some men are *genially* disposed to some opinions, and naturally averse to others. *Glanville.*

It chiefly proceedeth from natural incapacity, and *genial* indisposition. *Browne's Vulgar Errours.*

Creator Venus, *genial* power of love,
The bliss of men below and gods above! *Dryden.*

In *genial* Spring, beneath the quiv'ring shade,
Where cooling vapours breathe along the mead,
The patient fisher takes his silent stand
Intent his angle trembling in his hand. *Pope.*

The Spring drew near, each felt a breast
With *genial* instinct filled:
They paired, and would have built a nest,
But found not where to build. *Cowper.*

GENIC'ULATED, *adj.* } Latin *geniculatus*. The quality in
GENICULA'TION, *n. s.* } plants of having knobs or joints.

A piece of some geniculated plant seeming to be part of a sugar-cane. *Woodward on Fossils.*

GENII, in the Mahommedan theology, a sort of intermediate beings, supposed to exist between men and angels. They are of a grosser fabric than the latter, but much more active and powerful than the former. Some of them are good, others bad, and they are capable of future salvation or damnation like men. The orientals pretend that these genii inhabited the world many thousand years before the creation of Adam, under several princes, who all bore the common name of Solomon; that falling at length into an almost general corruption, Eblis was sent to drive them into a remote part of the earth, there to be confined; and that some of that generation still remaining, were by Tahmurath, one of the ancient kings of Persia, forced to retreat into the famous mountain of Kaf. Of this king's successions and wars they have also many fabulous and romantic stories. They likewise suppose several ranks and degrees or different species among this kind of beings; some being peculiarly called Jin, or genii; some Peri, or fairies; some Div, or giants; and others Tocwins, or fates.

GENIO, *n. s.* Ital. *genio*; Lat. *genius*. A man of a particular turn of mind.

Some *genios* are not capable of pure affection; and a man is born with talents for it as much as for poetry, or any other science. *Tatler.*

GENIOSTOMA, in botany, a genus of the monogynia order and pentandria class of plants: CAL. a turbinated quinquefid perianthium: COR. monopetalous and tubular; the stamina five short filaments; the antheræ oblong: SEED numerous and subangulated, placed on a filiform receptacle. Species one only; a native of the island of Tama.

GENISTA, broom, or dyers'-weed, a genus of the decandria order, and diadelphia class of plants; natural order thirty-second, papilionaceæ: CAL. bilabiate, the upper lip bidentated, the under one tridenate; the vexillum is oblong and reflexed, turned back from the pistil and stamina. There are several species; of which the following are the most remarkable:—

G. cytisus, or cytiso-genista, or common broom; which is too well known to need description. Its young flowers are sometimes preserved as pickles; and the plant, when burnt, affords a tolerably pure alkaline salt. Dr. Mead relates the case of a dropsical patient, who was cured by taking half a pint of a decoction of green broom tops, with a spoonful of whole white mustard seed, every morning and evening. The patient had been tapped three times, and tried the usual remedies before. An infusion of the seeds, drunk freely, has been known to produce similar happy effects. Cows, horses, and sheep, refuse the plant.

G. tinctoria is also a native of Britain. It rises with shrubby stalks three feet high, garnished with spear-shaped leaves, placed alternate, and terminated by several spikes of yellow flowers, succeeded by pods. The branches are used by dyers for giving a yellow color, from whence it is called dyers'-broom, green-wood, wood-waxen, or dyers'-weed. A dram and a half of the powdered seeds operates as a mild purgative. A decoction of the plant is diuretic; and, like the former, has proved serviceable in

dropsical cases. Horses, cows, goats and sheep, eat it.

GEN'ITALS, *n. s.* Lat. *genitalis.* The organs of generation.

Ham is conceived to be Jupiter, who was the youngest son, who is said to have cut off the *genitals* of his father. *Browne.*

GENITES, among the Hebrews, those descended from Abraham without any mixture of foreign blood. The Greeks distinguished by the name of genites, such of the Jews as were issued from parents who, during the Babylonish captivity, had not allied with any gentile family.

GENITING, *n. s.* A corruption of janeton, an early apple gathered in June.

In July come early pears and plumbs in fruit, *genitings* and codlins. *Bacon.*

GE'NITIVE, *adj.* Lat. *genitivus.* In grammar, the name of a case, which, among other relations, signifies one begotten, as, the father *of a son;* or one begetting, as, son *of a father.*

The GENITIVE is the second case of the declension of nouns. The relation of one thing considered as belonging in some manner to another, occasioned, in the Greek and Latin, a peculiar termination of nouns called the genitive case; but in the modern tongues a particle is prefixed to express the relation of this case. In English we prefix the particle *of;* in French *de* or *du*, &c.; though in strictness there are no cases in either of these languages; inasmuch as they do not express the different relations of things by different terminations, but by prepositions.

GENIUS, *n. s.* Fr. *genie;* Lat. *genius.* A fabled ruling power; a person of superior mental faculties; peculiar disposition or nature.

GENII, *n. s.* Plural of genius, and always used in its primary sense: the annexed illustration is an example.

If there be infinite planetary and firmamental worlds, as some will, there be infinite *Genii*, or commanding spirits belonging to each of them. *Burton. Anat. Mel.*

But if it be thei of evil life,
Whom *Genius* cursed, man and wife
That wrongly werke again Nature;—
None soche I love.
Chaucer. Romaunt of the Rose.

——————in the porch there sate
A comely personage of stature tall,
And semblaunce pleasing more than naturall,
That traveilers to him seemed to entise;
His looser garment to the ground did fall,
And flew about his heeles in wanton wize
Not fit for speedy pace or manly exercise,
They in that place him *Genius* did call.
Spenser's Faerie Queene.

There is none but he
Whose being I do fear: and, under him,
My *genius* is rebuked; as it is said
Antony's was by Cæsar. *Shakspeare. Macbeth.*

The *genius* and the mortal instruments
Are then in council; and the state of man,
Like to a little kingdom, suffers then. *Shakspeare.*

And as I awake, sweet musick breathe,
Sent by some spirit to mortals good,
Or the' unseen *genius* of the wood. *Milton.*

For they 'tis credible have sense
As we of love and reverence;
And underneath the coarser rind
The *Genius* of the house do bind. *Marvell.*

The state and order does proclaim
The *genius* of that royal dame. *Waller.*

And the tame demon that should guard my throne
Shrinks at a *genius* greater than his own. *Dryden.*

To your glad *genius* sacrifice this day;
Let common meats respectfully give way. *Id.*

Studious to please the *genius* of the times,
With periods, points, and tropes, he slurs his crimes. *Id*

A happy *genius* is the gift of nature. *Id.*

Your majesty's sagacity, and happy *genius* for natural history, is a better preparation for enquiries of this kind than all the dead learning of the schools. *Burnet's Theory. Preface.*

There is no little writer of Pindarick who is not mentioned as a prodigious *genius.* *Addison.*

When I read an author of *genius* without method, I fancy myself in a wood that abounds with many noble objects, rising among one another in the greatest confusion and disorder. *Id. Spectator.*

In Poets, as true *Genius* is but rare,
True Taste as seldom is the Critic's share;
Both must alike from Heaven derive their light
These born to judge, as well as those to write.
Pope's Essay on Criticism.

Chaucer, whose native manners-painting verse
Well mortalized, shines through the Gothic cloud
Of time and language o'er thy *genius* thrown.
Thomson's Summer.

The proverb ought to run, A fool and his words are soon parted; a man of *genius* and his money. *Shenstone.*

But if there is any writer whose *genius* can embellish impropriety, and whose authority can make error venerable, his works are the proper objects of critical inquisition. *Johnson's Rambler.*

In fashioning the character, and in giving impulse and direction to *genius*, the influence of habit is certainly very great. *Beattie.*

There is a tomb in Arqua;—reared in air,
Pillared in their sarcophagus, repose
The bones of Laura's lover: here repair
Many familiar with his well-sung woes,
The pilgrims of his *genius*—He arose
To raise a language, and his land reclaim
From the dull yoke of her barbaric foes:
Watering the tree which bears his lady's name
With his melodious tears, he gave himself to fame.
Byron. Childe Harold.

GENIUS, a good or evil spirit or dæmon, whom the ancients supposed set over each person, to direct his birth, accompany him in life, and to be his guard. See DÆMON. Among the Romans, Festus observes, the name genius was given to the god who had the power of doing all things, deum qui vim obtineret rerum omnium gerendarum: which Vossius, de Idol., rather chooses to read genendarum, who has the power of producing all things: by reason Censorinus frequently uses gerere for gignere. Festus adds, that Aufustius spake of the genius as the Son of God, and the Father of men, who gave them life; others represented the genius as the tutelary god of each place; and it is certain, the last is the most usual meaning of the word. The ancients had their genii of nations, of cities, of provinces, &c. The following was a very common inscription on their medals, GENIUS POPULI ROM. 'The genius of the Roman people.' The Platonists, and other eastern philosophers, supposed the genii to inhabit the vast region of air between earth and heaven:

that they were a sort of intermediate powers, who acted as mediators between gods and men: that they were the interpreters and agents of the gods; communicated their wills to men; and the prayers and vows of men to the gods. As they thought it below the majesty of the gods to enter into such trifling concerns, they esteemed this the lot of the genii, whose nature was a mean between the two; who derived immortality from the one, and passions from the other; and who had a body framed of an aerial matter. Most of the philosophers, however, held, that the genii of particular men were born and died with them; and Plutarch attributes the ceasing of oracles partly to the death of the genii. See ORACLE. Those heathens, who considered the genii as the guardians of particular persons, believed that they rejoiced and were afflicted at the good or ill fortune that befel their wards. They never, or very rarely, appeared to them, and then only in favor of some person of extraordinary virtue or dignity. They likewise held a great difference between the genii of different men; and that some were much more powerful than others: on this principle a wizard in Appian bids Antony keep at a distance from Octavius, as Antony's genius was inferior to and stood in awe of that of Octavius. There were also evil genii, who took a pleasure in persecuting men, and bringing them evil tidings; such was that in Paterculus, &c., which appeared to Brutus the night before the battle of Philippi.

GENNESARETH, in ancient geography, a lake of Lower Galilee, called also Cinnereth, Cinereth, or Chinnereth, by Moses; 140 stadia in length, and forty in breadth; abounding in fish. St. Matthew calls it the Sea of Galilee, and St. John the Sea of Tiberias.

GENOA (Ital. Genova), a handsome maritime city of Italy, formerly the capital of a republican state of this name, which extended along the shores of that part of the Mediterranean called the gulf of Genoa. This territory, while independent, was described as about 152 miles in length, but varying in its breadth from eight to twenty miles. It was bounded on the north by Piedmont, the Milanese, and the Parmesan, on the east by the states of the duke of Tuscany, on the south by the Mediterranean Sea, and on the west by the county of Nice. It was a part of the ancient Liguria, whence the French named it in modern times the Ligurian Republic. It lies between 7° 27′ and 9° 25′ E. long., and between 43° 40′ and 45° 0′ N. lat. It was transferred to Sardinia by the congress of Vienna, and now forms a province of that kingdom.

The city of Genoa rises from the northern extremity of the gulf in the form of an amphitheatre, the hill on which it is situated exhibiting its large white houses, and numerous public edifices, in striking contrast with the dark cliffs of the shore, and the naked sterility of the Appennines behind them. On the land side a double wall surrounds this ancient abode of commerce and the arts: the inner one is about six miles in circuit; the outer, called the Nuova Thura, including several hills, is perhaps twice that length. Two of the streets at one time consisted entirely of a double straight row of magnificent palaces: and the Strada Balbi, the Strada Nuova, and the Strada Nuovissima, are still spoken of by travellers as having a striking and magnificent coup d'œil. The others, though clean and well paved, are generally narrow, crooked, and some of them remarkably steep. The palaces of the ci-devant nobility are almost all of marble, and many of them are painted on the outside. That where the doge resided, and where the great and little council, and the two colleges of the procuratori and governatori assembled, is a large stone building in the centre of the city. It contains some fine paintings in fresco; two statues of Andrew and John Doria in white marble; and an arsenal, which used to contain arms for 34,000 men, and thirty-three coats of mail, which, it is said, were worn by as many Genoese heroines in a crusade. The residences of the Durazzo, Doria, Pallavicini, Balbi, and Correggo families are also much admired. Many of the façades of these palaces are painted in fresco in a very superior style.

The Palazzo Durazzo, still belonging to a signore of that name, is one of the finest in Genoa. Lady Morgan's lively description of it will give the reader a correct idea both of the rest of these edifices and the existing manners of the Genoese. 'The superb portico is ornamented with columns of white marble of the Doric order—its vast court is rich in architecture, fountains, and hanging terraces, and four flights of broad marble steps lead to its immense anti-chamber, the first apartment of that attic suite, called in Genoa the Mezzari Nobili Superiori: for the household economy of Genoa, as in many other cities of Italy, is the reverse of what it is in England. The narrow street and high dark opposite walls make the lower floors exceedingly disagreeable and gloomy; and the garret contains the rooms of state and ceremony, the cabinets of the relics of former grandeur; while the impoverished or degenerated lords are niched into an entresol, or mezzanini, half way between the first floor and the last.

'The porticoes, or entrances of the Genoese palaces, resemble in nothing the hall of a noble English residence, or the court of a French hotel. There is no sturdy porter to be roused from his 'leathern convenience,' to give or deny admission, with a growl and a frown: no bluff Swiss, nor maniérée demoiselle, to pop their head over the half-door of the lodge, and receive commands and answer enquiries. The sole occupant of these magnificent structures (where there is any) is a cobbler, perhaps, or a stocking-grafter, who pays for being permitted to ply his profession amidst the sculptures of Michael Angelo and the frescoes of Carloni, by keeping out dogs, or preventing the idle and the filthy from sleeping on the stairs, or corridors,—all open to public intrusion. In one of the porticoes of these beautiful palaces we found a mattress-cleaner very busy at his filthy work; and in the nobler apartments of another, the anti-room was occupied by a laundress. Several of the lower and lesser rooms were hired out to poor tradesmen; and many of the superior apartments were occupied by the ministers of the corps diplomatique

Some, however, were inhabited by the noble families to whom they belonged; but in the autumn almost all the Genoese aristocracy are at their villas. It was to one of these Jobsons we were frequently indebted (when we went alone) for information of how we were to proceed, or which flight of stairs we were to ascend, or where we had a chance of finding the custode or person retained for showing the palace: but their Genoese jargon occasionally prevented our deriving any benefit from their information:—though all the lower orders understand Italian, few speak it.

'As we ascended the magnificent stairs of the Durazzo, we met a half-starved dog chasing down a hen; and, after repeatedly ringing at the folding doors of the anti-room of the Mezzari nobili superiori, they were at last thrown open by a man with a boot on one hand and a brush in the other—who, at once understanding the object of our visit, drew on a fine old livery coat, which hung upon a marble bust by Filippo Parodi, and led the way through that long and interminable suite of apartments, whose walls were enriched with chefs-d'œuvre of the arts, whose floors were of marble, and whose roofs were of gold. Galleries, cabinets, terraces, rooms variously named and variously decorated, appeared in endless succession—all covered with dust, touched by decay, and abandoned to solitude. Still there is something very fine in the Genoese nobility, under the weight of their ruined fortunes and depressed spirits, retaining these noble mansions, preserving the least of their countless objects of art, and consecrating these images of their ancient wealth and influence to the memory of their nation's past prosperity, and to the admiration of foreign curiosity. They can indeed no longer spread the splendid board, nor fill the gilded hall; but their palaces are still open to gratify the stranger's research, and to improve his taste. They are not even closed against the visitors of that nation who imposed the chain, while they accepted the rites of hospitality; and who, under the semblance of liberty and friendship, betrayed the confidence, and broke the trust, reposed in them by their generous hosts.

'The architectural defects of the Palazzo Durazzo appear to be the breaking up of its vastness into a number of small rooms; each indeed interesting, as bearing the name of the great master whose works cover its walls; but defective as forming a part of the great whole. Even the famous gallery is but a long narrow strip, infinitely too small for its splendid and curious collection of statues and sculptures, ancient and modern. The ornaments and roof of this apartment, all of the richest carving, gilding, and painting, are by Parodi. The frescoes represent the destruction of the four great empires; a good republican subject, and curiously treated. Each empire is represented by some of its well-known historical tyrants, as Darius, Sardanapalus, Ptolemy, and Augustulus, surrounded by Syrens—the Montespans, Pompadours, Nell Gwins, &c. of antiquity. Besides the historical paintings of the great masters, the family portraits of the Durazzo, as in all the other palaces, by such painters as Titian, Vandyke, and Tintoretto, are of great interest. Here, in their habits of ceremony, as doges and ambassadors, range the ancient Durazzi, with all their insignia of wealth and splendor. Here too with large, languid, dark eyes, and primitive airs, still bloom the Madonna Francescas, Caterinas, and other beauties of this distinguished house. Some of them are encircled (as the mothers of free states should be) by their children; and all of them, clothed in the stand-on-end velvet of the Genoese looms, exhibit great richness of ornament, and are covered with Venetian chains and foreign gems, the produce of their husbands' commerce in the Levant. Among these domestic portraits, we found a picture of our own unfortunate Anne Boleyn, by Holbein. It is extremely curious for its costume; but in the meagre red-haired lady, here represented, there is nothing to excuse the adulterous passion of Henry VIII. though something to account for his cutting off a head, which had not one charm to plead for it. Holbein, though a bold, was a most unlovely painter. Opposite to Anne Boleyn hangs a delicious picture of the holiest and fairest of royal saints, queen Catherine of Sweden, by that painter whose type of beauty was all divine, yet all melancholy, the true delineator of a crucified Deity—Carlo Dolce! The Sala Paolo, so called from its chef-d'œuvre, by Paul Veronese, is the most interesting of the suite, merely because it does contain this picture, so well known, so often and so accurately copied, so delightful to gaze on, so dangerous to describe. The subject is Mary Magdalen at the feet of Christ in the house of the Pharisee. Never was a sacred subject so humanly conceived, more divinely executed.'

Genoa is the see of an archbishop who presides over the four suffragan dioceses into which the former republic is divided. The established religion is Catholic, but all other sects (including even the Jews) are tolerated. There is an old university here having a vast library, but all 'the faculties' seem to languish within its walls. Before the late revolutionary times, the number of churches in Genoa was thirty-two, and of religious houses seventy. Several of the former are master-pieces of architecture, but all are most gaudily ornamented. The church of the Annunciation, and the cathedral, are the most admired. That of Carignano was built at the expense of a single citizen, whose grandson erected the bridge of that name, which joins two hills, and forms one of the most favorite promenades. The theatres are three in number. The great hospital for the sick and infirm, and the Albergo dei Poveri, or poor-house, are noble buildings; but their once ample funds have been greatly intruded upon by their late masters. The public stores of wine, oil, and wood, from which the middling and lower classes may purchase, are however still kept up: and the inns here are considered commodious.

Genoa still conducts a considerable export trade in rice, fruit, and olive oil, as likewise in her manufactures, of silk, damasks, and velvets. The annual value of the silk and satin manufactures is from £200,000 to £300,000; the raw material being partly raised at home, and partly imported from Sicily, Calabria, and the Levant. From Sicily also corn is imported, and occasionally from Barbary; iron and naval stores from

the Baltic, linen and sail-cloth from Germany, and from England, tin, lead, hardware, and cottons. To these may be added wool from Spain, wax and cotton from the Levant, and colonial produce from the United States, and fish from Newfoundland. A considerable transit trade was facilitated by a law passed in 1751, which enabled the merchants to deposit goods in a quarter of the town called Porto Franco, duty free unless taken out for consumption. The exchange transactions are also considerable, though the different denominations and modes of reckoning money are complex, and the celebrated bank of Genoa no longer exists. The Genoese vessels in the coasting trade, do not exceed 100, and fifty perhaps trade in the open sea; but the chief business of the city is carried on under foreign flags.

The port of Genoa is formed by two moles, with a light-house on one mole head, and a fort on the other, distant from each other a quarter of a mile: the depth within is seven to three fathoms, and, though a south wind throws in a considerable swell, it is sufficiently secure. Both east and west the shore is lined with towns and villages. Genoa contains a population of about 80,000 souls.

The ancient history of Genoa, like that of many other places, is involved in fable. Some say it was built by Genuus, a son of Saturn; others by the god Janus, agreeably to which origin the ancient Latin authors often call it Janua. Be that as it may, the city of Genoa was a celebrated emporium in the time of the second Punic war; and, having declared for the Romans, was plundered and burnt by Mago the Carthaginian. It was afterwards rebuilt by the Romans; and with the rest of Italy continued under their dominion till the overthrow of the western empire in 476. In 498 it fell under the power of Theodoric the Ostrogoth; who, having defeated the usurper Odoacer, became king of Italy. Not long after, the Goths being almost entirely subdued by Belisarius, Justinian's general, Genoa was re-annexed to the Roman or rather eastern empire. In 670 it was plundered and burnt by the Lombards, whose king, Protharis, erected it into a provincial dukedom. The Lombards continued masters of Genoa till 774, when they were conquered by Charlemagne. He reduced Liguria to its ancient bounds settled by Augustus, and erected it into a marquisate: appointing his relation Audemarus the first count or margrave. In 806 the Genoese reduced Corsica. Genoa at this time being distinguished for its wealth and populousness, began to give its name to the whole coast; and continued under the dominion of these counts for about 100 years, till the Carlovingian race became extinct in Italy, and the empire was transferred to the German princes. In 935, while the Genoese forces were absent on some expedition, the Saracens surprised the city, which they plundered and burnt, putting to death a great number of the inhabitants, and carrying others into captivity. Having embarked their captives, together with an immense booty, they set sail for Africa; but the Genoese, immediately returning, pursued the invaders; and, having entirely defeated them, recovered all the captives and booty, and took a great number of the enemy's ships. About A. D. 950, the Franks having lost all authority in Italy, the Genoese began to form themselves into a republic, and to be governed by their own magistrates, who were freely elected, and took the name of consuls. To support their independence they applied themselves to commerce and navigation; and being apprehensive that some of the German emperors, who often invaded Italy, might renew their pretensions to their states, they acknowledged Berengarius III. duke of Friuli, who had been elected emperor by a party of Italian nobles. Berengarius, who with difficulty maintained himself in his new dignity, endeavoured by his concessions to enlarge the number of his adherents: and accordingly confirmed the new republic in all its privileges. After this the Genoese began to extend their commerce from Spain to Syria, and from Egypt to Constantinople; their vessels being fitted for fighting as well as merchandise. Having thus acquired great reputation, they were invited in 1017, by the Pisans, who had likewise formed themselves into a republic, to join with them in an expedition against Sardinia, which had been conquered by the Moors. In this expedition they were successful; the island was reduced; but from this time an enmity took place between the two republics, which did not end but with the ruin of that of Pisa. The first war with the Pisans commenced about thirty years after the Sardinian expedition, and lasted eighteen years; when the contending parties having concluded a peace, they sent their united forces against the Moors in Africa, of whom they are said to have killed 100,000.

The Genoese were very active in the time of the crusades, and had a principal share in the taking of Jerusalem. They also waged considerable wars with the Moors in Spain, whom they generally defeated. They also prevailed against the neighbouring states; and, in 1220, had enlarged their territories beyond the skirts of the Appennines, so that the rest of Italy looked upon them with a jealous eye; but in 1311 the factions which had long reigned in the city, notwithstanding all its wealth and power, induced the inhabitants to submit for twenty years to the dominion of the emperor Henry VII. That emperor, however, died in August 1312; and the vicar he had left soon after went to Pisa, upon which the dissentions in Genoa revived with greater fury than ever. In 1317 a quarrel happened between the families of Spinola and Doria; which came to such a height, that both parties fought in the streets for twenty-four days without intermission, raised battering engines against each other's houses, and filled the city with blood. At last the Spinolæ quitted the city, and retired to their territories in the Appennine mountains. The civil war continued till 1331: when, by the mediation of the king of Naples, it was agreed that all exiles should return to the city; that the republic should be governed by the king's vicar, and all the offices of the state be equally divided between the Guelfs and the Gibellines, the two contending parties. By this ruinous war the coast of Genoa, formerly adorned with palaces and vineyards, was now reduced to the appearance of a barren waste. So great was the desolation that, according to Petrarch, the spectators who sailed along were struck with

astonishment and horror. Villani, a contemporary author, relates, that the losses each party had sustained would have been sufficient to have purchased a kingdom; the Genoese republic being esteemed in his time the richest and most powerful state in Christendom. Stella informs us that, before the war, the most extravagant profusion and luxury prevailed among the Genoese; but that, towards the end, many noble families were reduced to indigence; so that, for about 100 years after, it became fashionable for the nobles to live in a plain and frugal manner. In 1336 both parties, suspending their animosities, sent two fleets of twenty galleys each into the German Ocean, to assist Philip VI. king of France, against Edward III. of England. This naval expedition proved the cause of a most remarkable revolution in the Genoese government. The sailors accused their officers of defrauding them of their pay, proceeded to an open mutiny, and having expelled the admiral, and other commanders, seized the galleys. Philip VI., being chosen arbitrator, decided in favor of the officers, and imprisoned sixteen chiefs of the mutineers. Upon this several of the sailors left the fleet, and returned to Genoa; where they went round the coasts, repeating their mutinous complaints, which were eagerly listened to upon a false report that the mutineers were broken upon the wheel. The factious spirit increased; and at last the Genoese insisted on having an abbot of their own choosing, and twenty of the people, with the consent of the captains of the republic, assembled for that purpose. While the multitude, however, were impatiently expecting their decision, a mechanic mounted a bench and proposed that Samuele Bucanigree should be chosen abbot. This being instantly echoed, by the populace, he was first declared abbot, then lord, and at last doge, of Genoa. But the dissentions continued as violent as ever, notwithstanding the power of the new magistrate; and by these perpetual divisions the republic was at last so much weakened that, in 1390, Charles VI., king of France, was declared lord of Genoa. However the Genoese soon became exceedingly impatient of the French government; and, in 1422, the duke of Milan obtained the sovereignty. With this situation they were soon equally displeased, and therefore revolted in 1436. In 1458, finding themselves pressed by a powerful fleet and army sent by Alphonso king of Naples, they conferred the sovereignty of their state upon Charles VII. of France. But in 1460 they revolted, and four years after put themselves again under the protection of the duke of Milan; from whom they revolted in 1478. He was again declared sovereign of the republic in 1488; and in 1499 the city and territories of Genoa were conquered by Louis XII. of France. The fickleness of the Genoese was not corrected by this misfortune. They revolted in 1506; but next year were again subdued by Louis. In 1512 they again revolted; and in 1516 the city was taken and plundered by the Spaniards. In 1528 the celebrated Andrew Doria, then an admiral in the French service, undertook to rescue his country from the dominion of foreign princes, and restore it to its liberty. He told his countrymen that the French, who had again obtained the sovereignty, had left them only a shadow of liberty, while they pretended to protect them from their enemies. To the nobility he represented the disgrace of suffering the government to be vested in the hands of foreigners less worthy of authority than themselves. Thus he soon formed a strong faction, and when almost three-fourths of the French garrison had been carried off by the plague, he advanced with 500 men. His friends having opened the gates of the city to him, he seized the principal posts, and thus became master of it without drawing his sword. The garrison retired to the forts, where they soon after capitulated, and being driven out of the city, Doria re-established the ancient form of government. See Doria.

The republic continued throughout the rest of the eighteenth century to preserve her liberty, though greatly fallen from her ancient splendor. In 1684, the Genoese having fallen under the resentment of Louis XIV., the city was almost destroyed by a formidable bombardment. In 1688 it was bombarded by admiral Byng, and forced to capitulate: but the British government had no view of making a permanent conquest of it. In 1713 the emperor Charles VI. sold the town and marquisate of Finale to the republic, which, in 1743, involved it in a bloody war; for the queen of Hungary having, by the treaty of Worms, ceded to the king of Sardinia her right to Finale, the Genoese formed an alliance with France, Spain, and Naples: and, in 1745, declared war against the king of Sardinia, who soon made himself master of great part of the state, while several Genoese ports were bombarded by the British, and the city of Genoa was taken by the Imperialists: but after a terrible slaughter they were driven out by the Genoese; who again defeated them in 1747, when they attempted to recover it. In 1730 the island of Corsica revolted from the Genoese, and could never afterwards be reduced by them: for which reason they at last sold it to the French, who in 1770 totally reduced it. See Corsica.

The ancient constitution, from the time of its establishment by the brave Andrew Doria, in 1528, was aristocratic, though not so much so as that of Venice The nobility alone were capable of holding the chief offices in the republic. From this body were elected the doge, the great council, and the senate. The doge, or duke, was elected for two years, and was incapacitated from being re-elected for five years after; but had a procurator's office assigned him, and a pension of 500 scudi for life. No person could be elected doge till he was fifty years of age, and had left off trade for fifteen years before. The great council consisted of eighty counsellors, in whom the sovereignty chiefly resided. The senate consisted of twelve senators, who, with the doge, had the administration of affairs. In November, 1797, this form of government was overturned, hereditary titles and honors abolished, and a new democratic constitution established, by Buonaparte, with a directory, two councils, &c., similar to the then constitution of France; while the whole state, according to the then frantic rage of the French for republicanism, was called

the Ligurian republic, and, being under the control of the rulers of France, it long shared in the warfare of that country. In 1801 the city sustained a severe siege from the Austrian army and the British fleet, till literally starved; which obliged the French General, Massena, to evacuate it on the 7th of June. It was however soon afterwards delivered up to the French, upon the celebrated victory of Marengo; and the republic restored to tranquillity by the treaty of Amiens. But Buonaparte having afterwards abjured his republican notions, and assumed the titles of emperor of France and king of Italy, this, with the other republics which his military power had contributed to raise in Europe, was to experience another revolution. Early in 1805 he forcibly seized upon the whole of this republic, abolished its constitution, and united it to his kingdom of Italy. In 1805 it was incorporated with its territory into the French empire, forming the departments of Genoa, Montenotte, and the Appennines. It remained subject to Buonaparte until his final reverses in Germany, and the invasion of France in 1814, when a British naval force once more blockaded the harbour. To this force the Genoese surrendered, April 18th 1814, and received a garrison, in the expectation of being reinstated in their former liberty. The congress of Vienna, however, decided otherwise, and made over the city, with its territory, to the king of Sardinia. It is now said to be governed by its own laws; the inhabitants preserving their senate, their supreme court of justice, and provincial councils, who impose all new taxes, and conduct the entire police.

Genoa is distant 224 miles north-west of Rome, and stands in N. lat. 44° 25, and E. long. 8° 50′.

GENOVESI (Anthony), a modern Italian writer of celebrity, was born at Castiglione in 1712. He was brought up as a clergyman, but practised the law; and, in 1741, was appointed professor of metaphysics at Naples. He afterwards exchanged this for the ethical chair. He became also an unsuccessful candidate for the professorship of theology. He was made, however, professor of political economy; which place he held at his death, which took place in 1769. He wrote—1. Disciplinarum Metaphysicarum Elementa Mathematicum in morem adornata, 4 vols. 8vo; 2. Elementorum Artis Logico-criticæ Libri Quinque; 3. Delle Lezioni di Commercio; 4. Meditazioni Filosofiche Sulla Religione e Sulla Morale, &c.

GENTEE'L, *adj.*
GENTEEL'LY, *adv.*
GENTEEL'NESS, *n. s.*
GENTILESSE', *n. s.*
GENTIL'ITY, *n. s.*
GEN'TLE, *adj.*, *n. s.* & *v.a.*
GEN'TLEFOLK, *n. s.*
GEN'TLEMAN, *n. s.*
GEN'TLEMANLIKE, *adj.*
GENTLE'MANLY, *adv.*
GEN'TLENESS, *n. s.*
GEN'TLESHIP, *n. s.*
GEN'TLEWOMAN, *n. s.*
GEN'TLY, *adv.*
GEN'TRY, *n. s.*
GENT, *adj.*

Fr. *gentil*; Italian *gentile*; Lat. *gentilis*. These words are indifferently applied to persons, dispositions, and manners, and primarily imply softness; ease; grace; elegance; superiority; rank: used either as descriptive, or ironically as terms of ridicule. The word gentle also is used for a worm used in angling; the only verb amongst them, which means to elevate or make gentle, is quite obsolete.

Fayre was this yonge wif; and, therwithal,
As any wesel hire body *gent* and smal.
Chaucer. The Milleres Tale.

—And he that wol han pris of his *genterie*,
For he wos boren of a *gentil* hous,
And had his elders noble and vertuous—
And ni'll himselven do no *gentil* dedes,
Ne folwe his *gentil* auncestrie that ded is,—
He n'is not *gentil* be he duk or erl;
For vilains sinful dedes make a cherl.
For *gentillesse* n'is but the renornee
Of their auncestres for hir high bountee,
Which is a strange thing to thy persone:
Thy *gentillesse* cometh fro God alone.
Than cometh our very *gentillesse* of grace;
It was no thing bequethed us with our place.
Id. The Wif of Bathes Tale.

A *gentilwoman*, porter of the gate,
There shal ye find, hire name is Countenance.
Id. The Assemblee of Ladies.

Than opened she the gate, and in we go;
With wordes faire she saide full *gentilly*
Ye are welcome ywis. *Id.*

Adue, the *gentillest* that er I knewe!
Adue my most excellent paramour,
Fairer than rose, sweter than lylly flour.
Id. Lament of Mary Magdaleine.

Adue, my soveraine and very *gentilman*
Farewel, dere herte! as hertely as I can. *Id.*

Some in France, which will needs be *gentlemen*, have more *gentleship* in their hat than in their head.
Ascham's Schoolmaster.

Thereto the heavens, alwayes joviall
Lookte on them lovely, still in stedfast state,
Ne suffred storme nor frost on them to fall,
Their tender buds or leaves to violate;
Nor scorching heat nor cold intemperate,
To' afflict the creatures which therein did dwell;
But the mild ayre with season moderate
Gently attempred, and disposed so well
That still it breathed forth sweet spirit and holesom smell. *Spenser's Faerie Queene.*

Vespasian, with great spoil and rage,
Forewasted all: till Genuissa, *gent*
Persuaded him to cease. *Id.*

He holdeth himself a *gentleman*, and scorneth to work, which, he saith, is the life of a peasant or churl; but enureth himself to his weapon, and to the *gentlemanly* trade of stealing. *Spenser.*

When people began to espy the falsehood of oracles, whereupon all *gentility* was built, their hearts were utterly averted from it. *Hooker.*

He to-day that sheds his blood with me,
Shall be my brother; be he never so vile,
This day shall *gentle* his condition. *Shakspeare.*

Where is my lovely bride?
How does my father? *Gentles*, methinks you frown.
Id.

Pyramus is a sweet-faced man; a proper man as one shall see in a summer's day; a most lovely *gentlemanlike* man. *Id.*

You have trained me up like a peasant, hiding from me all *gentlemanlike* qualities. *Id.*

Inquire me out some mean-born *gentleman*,
Whom I will marry strait to Clarence' daughter. *Id.*

The queen's kindred are made *gentlefolk*. *Id.*

Her *gentlewomen*, like the Nereids,
So many mermaids, tended her i' the' eyes.
And made their bends adorings. *Id.*

Shew us so much *gentry* and good-will,
As to extend your time with us a-while. *Id.*

Her voice was ever soft,
Gentle and low; an excellent thing in woman.
Id.

My lord Sebastian,
The truth, you speak, doth lack some *gentleness*. *Id.*
The *gentleness* of all the gods go with thee. *Id.*
As *gentle*, and as jocund, as to jest,
Go I to fight. *Id. Richard II.*

Sir Thomas More, the Sunday after he gave up his chancellorship, came to his wife's pew, and used the usual words of his *gentleman* usher, Madam, my lord is gone. *Camden.*

Gentlewomen may do themselves much good by kneeling upon a cushion, and weeding. *Bacon.*

Gavelkind must needs in the end, make a poor *gentility*. *Davies on Ireland.*

And though this sense first *gentle* musick found,
Her proper object is the speech of men. *Davies.*

She that was noble, wise, as fair and *gent*,
Cast how she might their harmless lives preserve.
Fairfax.

Of all vanities and fopperies, to brag of *gentility* is the greatest. *Burton. Anat. Mel.*

Consider the beginning, present estate, progresse, ending of *gentry*, and then tell me what it is. *Id.*

Art thou vertuous, honest, learned, well qualified, religious, are thy conditions good: thou art a true nobleman, perfectly noble, although born of Thersites.
* * * * * * * * * *
neither sword, nor fire, nor water, nor sickness, nor outward violence, nor the devil himself can take thy good parts fom thee. Be not ashamed of thy birth then, thou art a *gentleman* all the world over. *Id.*

The true *gentleman* is extracted from ancient and worshipful parentage. When a pepin is planted on a pepin stock, the fruit growing thence is called a renate, a most delicious apple, as both by sire and damme well descended. Thus his blood must needs be well purified who is *gentilely* born on both sides. *Fuller.*

Your brave and haughty scorn of all,
Was stately and monarchial;
All *gentleness* with that esteemed,
And dull and slavish virtue seemed. *Cowley.*
Still she retains
Her maiden *gentleness*, and oft at eve
Visits the herds. *Milton.*

These are the studies wherein our noble and *gentle* youth ought to bestow their time. *Id. on Education.*

My *gentler* rest is on a thought,
Conscious of doing what I ought. *Marvell.*
She with her wedding-cloaths undresses
Her complaisance and *gentilesses*. *Hudibras.*

He will in the three hot months bite at a flag-worm, or at a green *gentle*. *Walton's Angler.*

A civil war was within the bowels of that state, between the *gentleman* and the peasants. *Sidney.*

They entering and killing all of the *gentle* and rich faction, for honesty sake broke open all prisons. *Id.*

He hither came a private *gentleman*,
But young and brave, and of a family
Ancient and noble. *Otway's Orphan.*
You say a long-descended race
Makes *gentlemen*, and that your high degree
Is much disparaged to be matched with me.
Dryden.

He had a genius full of *genteelness* and spirit, having nothing that was ungraceful in his postures and dresses. *Id. Dufresnoy.*

The perpetual *gentleness* and inherent goodness of the Ormond family. *Id. Fables, Dedication.*

The mischiefs that come by inadvertency, or ignorance, are but very *gently* to be taken notice of.
Locke.

Those that would be *genteelly* learned, need not purchase it at the dear rate of being atheists.
Glanville.

After a long fatigue of eating and drinking, and bubbling, he concludes the great work of dining *genteelly*. *South.*

So spruce that he can never be *genteel*. *Tatler.*

The same *gentlemen* who have fixed this piece of morality on the three naked sisters dancing hand in hand, would have found out as good a one had there been four of them sitting at a distance, and covered from head to foot. *Addison.*

Their poets have no notion of *genteel* comedy, and fall into the most filthy double meanings when they have a mind to make their audience merry.
Id. On Italy.

The many-coloured *gentry* there above,
By turns are ruled by tumult and by love.
Prior.

He had such a *gentle* method of reproving their faults, that they were not so much afraid as ashamed to repeat them. *Atterbury.*

Of *gentle* blood, part shed in honour's cause,
Each parent sprung. *Pope.*

He had a *genteeler* manner of binding the chains of this kingdom than most of his predecessors.
Swift to Gay.

Gentlefolks will not care for the remainder of a bottle of wine; therefore set a fresh one before them.
Swift.

How cheerfully the hawkers cry
A satyr, and the *gentry* buy. *Id.*

Several ladies that have twice her fortune, are not able to be always so *genteel*, and so constant at all places of pleasure and expence. *Law.*

He is so far from desiring to be used as a *gentleman*, that he desires to be used as the servant of all. *Id.*

Nor shall my verse that elder bard forget,
The *gentle* Spenser, Fancy's pleasing son;
Who, like a copious river, poured his song
O'er all the mazes of enchanted ground.
Thomson. Summer.

Women ought not to think *gentleness* of heart despicable in a man. *Clarissa.*

Gentle he was, if *gentle* birth
Could make him such, and he had worth,
If wealth can worth bestow. *Cowper.*

In truth he was a strange and wayward wight,
Fond of each *gentle* and each dreadful scene.
Beattie. The Minstrel.

Though some unhappy instances of frivolous duels have occurred, I cannot think that it is the vice of the times to be fond of quarrelling; the manners of our young men of distinction are certainly not of that cast, and if it lies with any of the present age, it is with those half made up *gentry*, who force their way into half-price plays in boots and spurs, and are clamorous in the passages of the front boxes of a crowded theatre. *Cumberland.*

A band of children, round a snow-white ram,
There wreathe his venerable horns with flowers;
While peaceful, as if still an unweaned lamb,
The patriarch of the flock all *gently* cowers
His sober head, majestically tame,
Or eats from out the palm, or playful lowers
His brow, as if in act to butt, and then,
Yielding to their small hands, draw back again.
Byron Don Juan.

An honest *gentleman* at his return
May not have the good fortune of Ulysses;
Not all lone matrons for their husbands mourn
Or shew the same dislike to suitor's kisses. *Id.*

Why did he love him? Curious fool!—be still—
Is human love the growth of human will?
To her she might be *gentleness*. *Byron.*

GENTIAN, *n. s.* Fr. *gentiane;* Lat. *gentiana, cyaneus;* Gr. κυανος, blue; because this plant has a blue flower, κυανεος. A root used in medicine. See below.

If it be fistulous, and the orifice small, dilate it with *gentian* roots. *Wiseman's Surgery.*

The root of *gentian* is large and long, of a tolerably firm texture, and remarkably tough; it has a faintish and disagreeable smell, and an extremely bitter taste. *Hill's Mat. Med.*

GENTIANA, gentian, in botany, a genus of the digynia order, and pentandria class of plants; natural order twentieth, rotaceæ: COR. monopetalous: CAP. bivalved and unilocular: there are two longitudinal receptacles. The most remarkable species are the following:—

1. G. centaureum, the less centaury of the shops, is a native of many parts of Britain. It grows on dry pastures; and its height is commonly proportioned to the goodness of the soil; as, in rich soils, it grows to the height of a foot; but in poor ones not above three or four inches. It is an annual plant, with upright branching stalks, garnished with small leaves, placed by pairs. The flowers grow in form of an umbel at the top of the stalk, and are of a bright purple color. They come out in July, and the seed ripens in autumn. The plant cannot be cultivated in gardens. The tops are a useful aperient bitter, in which view they are often used in medicine.

2. G. lutea, the common gentian of the shops. It is a native of the mountainous parts of Germany; whence the roots, the only part used in medicine, are brought to this country. These have a yellowish brown color, and a very bitter taste. The lower leaves are of an oblong oval shape, a little pointed at the end, stiff, of a yellowish green, and have five large veins on the back of each. The stalk rises four or five feet high, garnished with leaves growing by pairs at each joint, almost embracing the stalk at their base. They are of the same form with the lower, but diminish gradually in their size to the top. The flowers come out in whirls at the joints on the upper part of the stalks, standing on short foot-stalks, whose origin is in the wings of the leaves. They are of a pale yellow color. The roots of this plant are often used in medicine as stomachic bitters. In taste they are less exceptionable than most of the substances of this class. Infusions of gentian root, flavored with orange peel, are sufficiently grateful. Some years ago a poisonous root was discovered among the gentian brought to London; the use of which occasioned violent disorders, and in some cases death. This root is easily distinguished from the gentian, by its being internally of a white color, and void of bitterness.

GENTIANE'LLA, *n. s.* A kind of blue color.

GEN'TILE, *n. s.* }
GEN'TILISM, *n. s.* }
GENTILI'TIOUS, *adj.* }
GENTIL'ITY, *n. s.* }
Fr. *gentil;* Lat. *gentilis, gens.* Applicable to individuals of all nations as opposed to Jews; peculiar to a nation; hereditary disposition; Heathenism; of or belonging to national distinction.

Tribulation and anguish upon every soul that doeth evil, of the Jew first, and also of the *gentile*. *Romans.*

Fine Basil desireth it may be her lot
To grow as a gilliflower, trim in her pot;
That ladies and *gentiles*, for whom we do serve,
May help him as needeth, poor life to preserve.
Tusser.

Gentiles or infidels, in those actions, upon both the spiritual and temporal good, have been in one pursuit conjoined. *Bacon.*

A toleration of Jews is in most provinces of Europe: in Asia they have their synagogues. Spaniards permit Moors to live among them; the Mogullians, *Gentiles;* the Turks all religions. *Burton's Anat. Mel.*

That an unsavory odour is *gentilitious*, or national unto the Jews, reason or sense will not induce. *Browne.*

If invocation of saints had been produced in apostolical times, it would have looked like the introducing of *gentilism* again. *Stillingfleet.*

The common cause of this distemper is a particular and perhaps a *gentilitious* disposition of body. *Arbuthnot.*

GENTILE. The Jews called all those who were not of their race גוים, gojim, i. e. gentes, which in the Greek translations of the Old Testament is rendered τα εθνα; in which sense it often occurs in the New Testament; as in Matt. vi. 32. 'All these things do the Gentiles (or nations) seek.' Whence the Latin church also used gentes in the same sense as our Gentiles, especially in the New Testament. But the word gentes soon obtained another signification, and no longer meant all who were not Jews; but those only who were neither Jews nor Christians, but followed the superstitions of the Greeks and Romans, &c. In this sense it continued among the Christian writers, till their religion was publicly, and by authority, received in the empire; when gentiles, from gentes, came into use: and then both words had two significations, viz., in treatises or laws concerning religion, they signified pagans, neither Jews nor Christians; and, in civil affairs, they were used for all such as were not Romans.

GENTILE, in the Roman law and history, sometimes expresses what the Romans otherwise called barbarians, whether they were allies of Rome or not: but this word was used in a more particular sense for all strangers not subject to the Roman empire.

GENTILESCHI (Horatio), an Italian painter, born at Pisa in 1563. After painting with great reputation at Florence, Rome, Genoa, and other parts of Italy, he removed to Savoy, thence to France, and at last came over to England, upon the invitation of Charles I., who appointed him lodgings in his court, with a considerable salary; and employed him in his palace at Greenwich, and other public places. The most remarkable of his performances in England, were the ceilings of Greenwich and York house. He painted also a Madonna, a Magdalen, and Lot with his two daughters, for king Charles. After the death of

the king, when the royal collection was sold, nine of these pictures drew £600. His most esteemed work abroad was the portico of cardinal Bentivoglio's palace at Rome. He made several attempts at portrait painting, but with little success; his talent lying altogether in historical or mythological figures. After twelve years residence in England, he died in 1647, aged eighty-four; and was buried in the Queen's Chapel at Somerset House. His head was drawn by Vandyke.

GENTILESCHI (Artemisia), daughter of the preceding, was little inferior to her father in historical painting, and excelled him in portraits. She drew some of the royal family, and many of the nobility.

GENTLEMAN originally comprehended all above the rank of yeoman; whereby even noblemen are properly called gentlemen. See COMMONALTY. A gentleman is usually defined among heralds, to be one who, without any title, bears a coat of arms, or whose ancestors have been freemen: and by the coat that a gentleman giveth, he is known to be, or not to be, descended from those of his name who flourished many hundred years before. The Gauls observing that, during the empire of the Romans, the scutarii and gentiles had the best appointments of all the soldiers, became insensibly accustomed to apply the same names, gentils-hommes and ecuyers, to such persons. Gentlemen and esquires are confounded together by Sir Edward Coke; who observes, that every esquire is a gentleman, and a gentleman is defined to be one 'who bears coat armour.' It is indeed a matter somewhat unsettled, what constitutes the distinction, or who is a real esquire; for it is not an estate, however large, that confers this rank upon its owner. 'As for gentlemen,' says Sir Thomas Smith, 'they be made good cheap in this kingdom: for whosoever studieth the laws of the realm, who studieth in the universities, who professeth liberal sciences, and who can live idly and without manual labor, and will bear charge and countenance of a gentleman, he shall be called master, and shall be taken for a gentleman.'

GENTLEMAN USHER OF THE BLACK ROD. See USHER.

GENTLEMEN OF THE CHAPEL; officers whose duty and attendance is in the royal chapel, being in number thirty-two. Twelve of them are priests: the other twenty, commonly called clerks of the chapel, assist in the performance of divine service. One of the first twelve is chosen for confessor of the household servants, to visit the sick, examine and prepare communicants, and administer the sacrament. One of the twenty clerks, well versed in music, is chosen first organist, who is master of the children, to instruct them in music, and whatever else is necessary for the service of the chapel; a second is likewise an organist; a third a lutanist; and a fourth a violist. There are likewise three vergers, so called from the silver rods they carry in their hands; being a serjeant, a yeoman, and groom of the vestry: the first attends the dean and subdean, and finds surplices and other necessaries for the chapel; the second has the whole care of the chapel, keeps the pews and seats of the nobility and gentry; the groom has his attendance within the chapel door, and looks after it.

GENTOOS, in modern history, according to the common acceptation of the term, denote the professors of the religion of the bramins or brachmans, who inhabit the country called Hindostan, or Indostan, in the East Indies, from the word stan, a region, and hind or hindoo: which Ferishteh, as we learn from colonel Dow's translation of his history, supposes to have been a son of Ham, the son of Noah. Hindoo, however, is not the name by which the inhabitants originally styled themselves; but, according to the idiom of the Sanscrit which they use, jumbodeep, from jumboo, a jackall, an animal common in their country: and deep, a large portion of land surrounded by the sea: or bhertekhunt, from khunt, i. e. a continent, and bherrhut, the name of one of the first Indian rajahs. They have assumed the name of Hindoos only since the era of the Tartar government, to distinguish themselves from their conquerors the Mussulmans. The term gentoo or gent, in the Sanscrit dialect, denotes animal in general, and, in its more confined sense, mankind, and is never appropriated particularly to such as follow the doctrines of Brhima. The Gentoos are divided into four great tribes, each of which has its own separate appellation; but they have no common or collective term that comprehends the whole nation, under the idea affixed by Europeans to the word Gentoo. Mr. Halhed, in the preface to his translation of the Code of Gentoo Laws, conjectures, that the Portuguese, on their first arrival in India, hearing the word frequently in the mouths of the natives, as applied to mankind in general, might adopt it for the domestic appellation of the Indians themselves; or perhaps their bigotry might figure from the word Gentoo a fanciful allusion to Gentile. The Hindoos, or Gentoos, vie with the Chinese as to the antiquity of their nation. They reckon the duration of the world by four jogues, or distinct ages: The first is the Suttee jogue, or age of purity, which is said to have lasted about 3,200,000 years; during which the life of man was 100,000 years, and his stature twenty-one cubits: The second, the Tirtah jogue, or the age in which one-third of mankind were reprobated; which consisted of 2,400,000 years, when men lived to the age of 10,000 years: The third, the Dwapar jogue, in which half of the human race became depraved; which endured to 600,000 years, when men's lives were reduced to 1000 years: and, fourth, the Collee jogue, in which all mankind were corrupted, or rather diminished, which the word collee imports. This is the present era, which they suppose will subsist for 400,000, of which nearly 5000 are already past; and man's life in this period is limited to 100 years. Many authors suppose that most of the Gentoo shasters, or scriptures, were composed about the beginning of the collee jogue: but an objection occurs against this supposition, viz. that the shasters take no notice of the deluge; to which the brahmins reply, that all their scriptures were written before the time of Noah, and the deluge never extended to Hindostan. Nevertheless, it ap-

pears from the shasters themselves, that they claim a much higher antiquity than this; instances of which are recited by Mr. Halhed. The doctrine of transmigration is one of the distinguishing tenets of the Gentoos. It is their opinion, according to Mr. Holwell, that those souls which have attained to a certain degree of purity, either by the innocence of their manners or the severity of their mortifications, are removed to regions of happiness proportioned to their respective merits; but that those who cannot so far surmount the prevalence of bad examples, and the powerful degeneracy of the times, as to deserve such a promotion, are condemned to undergo continual punishment, in the animation of successive animal forms, until, at the stated period, another renovation of the four jogues shall commence, upon the dissolution of the present. They imagine six different spheres above this earth; the highest of which, called suttee, is the residence of Brhima or Brahma, and his particular favorites. This sphere is also the habitation of those men who never uttered a falsehood, and of those women who have voluntarily burned themselves with their husbands; which practice is expressly enjoined in the code of the Gentoo laws. This code, printed by the East India Company in 1776, is a very curious collection of Hindoo jurisprudence, which was selected from curious originals in the Sanscrit language, by the most experienced pundits, or lawyers; who were employed for this purpose from May 1773 to February 1775; afterwards translated into the Persian, and then into English, by Mr. Halhed. The institutes contained in this collection are interwoven with the religion of the Gentoos, and revered as of the highest authority. The curious reader will discover an astonishing similarity between the institutes of this code and many of the ordinances of the Jewish law; between the character of the brahmins or priests, and the Levites; and between the ceremony of the scape goat under the Mosaic dispensation, and a Gentoo ceremony called the ashummed jug, in which a horse answers the purpose of the goat. Many obsolete customs and usages, alluded to in many parts of the Old Testament, may also receive illustration from the institutes of this code. It appears from the code, that the brahmins, who are the priests and legislators of the country, have resigned all the secular and executive power into the hands of another cast or tribe; and no brahmin has been properly capable of the magistracy since the time of the suttee jogue. The only privilege of importance which they have appropriated to themselves, is an exemption from all capital punishment: they may be degraded, branded, imprisoned for life, or sent into perpetual exile; but it is every where expressly ordained, that a brahmin shall not be put to death on any account whatsoever. The four great and original tribes into which the Gentoos are divided, according to their theology, proceed from the four different members of Brahma, the supposed immediate agent of the creation under the spirit of the Almighty. These tribes are, 1. The Brahmins, which proceeded from the mouth, and whose office is to pray, read, and instruct: 2. The Chehteree, which proceeded from his arms, whose office is to draw the bow, to fight, and to govern: 3. The Bice, which proceeded from his belly or thighs, who are to provide the necessaries of life by agriculture and traffic: and, 4, The sooder, from his feet, which are ordained to labor, serve, and travel. Few Christians, says the translator of the Gentoo code, have expressed themselves with a more becoming reverence of the grand and impartial designs of Providence, in all his works, or with a more extensive charity towards all their fellow creatures of every profession, than the Gentoos. It is indeed an article of faith among the brahmins, that God's all merciful power would not have permitted such a number of different religions, if he had not found a pleasure in beholding their varieties.

GENUFLECTION, *n. s.* Lat. *genu*, the knee, and *flecto*, to bend. The act of kneeling; adoration expressed thereby.

Here use all the rites of adoration, *genuflections*, wax-candles, incense, oblations, prayers only excepted. *Stillingfleet.*

GENUFLECTION, says the Jesuit Rosweyd in his Onomasticon, has been a very ancient custom in the church, even under the Old Testament dispensation; and was observed throughout the year, excepting on Sundays, and from Easter to Whitsuntide, when kneeling was forbidden by the council of Nice. Others have shown, that the custom of not kneeling on Sundays had obtained from the time of the Apostles, as appears from St. Irenæus, and Tertullian; and the Ethiopic church, scrupulously attached to the ancient ceremonies still retains that of kneeling at divine service. The Russians esteem it an indecent posture to worship God on the knees. The Jews usually prayed standing. Rosweyd gives the reasons of the prohibition of genuflexion on Sundays, &c., from St. Basil, Anastasius, St. Justin, &c.

GEN'UINE, *adj.* } Lat. *genuinus*. True;
GEN'UINELY, *adv.* } real; opposed to what-
GEN'UINENESS, *n. s.* } ever is false, adulterated, impure, or mixed.

Experiments were at one time tried with *genuine* materials, and at another time with sophisticated ones. *Boyle.*

There is another agent able to analize compound bodies less violently, more *genuinely*, and more universally than the fire. *Id.*

A sudden darkness covers all;
True *genuine* night: night added to the groves.
Dryden.

The stream of pure and *genuine* love
Derives its current from above;
And earth a second Eden shows,
Where'er the healing water flows. *Cowper.*

GENUS, *n. s.* Lat. A scientific term to designate a class of being which comprehends many species: thus quadruped is a genus including almost all terrestrial beasts.

If minerals are not convertible into another species, though of the same *genus*, much less can they be surmised reducible into a species of another *genus*. *Harvey on Consumptions.*

A general idea is called by the schools *genus*, and it is one common nature agreeing to several other common natures: so animal is a *genus*, because it agrees to horse, lion, whale, and butterfly. *Watts.*

GENUS is also used for a character or manner applicable to every thing of a certain nature or condition: in which sense it serves to make divisions in divers sciences, as medicine, natural history, &c.

GENUS, in medicine. See MEDICINE.

GENUS, in metaphysics and logic, denotes a number of beings which agree in certain general properties common to them all; so that a genus is nothing else but an abstract idea, expressed by some general name or term. See LOGIC and METAPHYSICS.

GENUS, in natural history, a subdivision of any class or order of natural beings, whether of the animal, vegetable, or mineral kingdoms, all agreeing in certain common characters. See BOTANY and ZOOLOGY.

GENUS, in rhetoric. Authors distinguish the art of rhetoric, as well as orations or discourses produced thereby into three genera, demonstrative, deliberative, and judiciary. To the demonstrative kind belong panegyrics, genethliacons, epithalamiums, funeral harangues, &c. To the deliberative, persuasions, dissuasions, commendations, &c. To the judiciary, accusations and defences.

GEOCE'NTRICK, *adj.* Fr. *geocentrique*; Gr. γῆ the earth, and κέντρον. Applied to a planet or orb having the earth for its centre, or the same centre with the earth.

GEODÆSIA, *n. s.* } Gr. γεωδαισια. A term
GEODÆTICAL, *adj.* } that has been sometimes applied to that part of geometry which contains the doctrine of measuring surfaces, and finding the contents of all plain figures.

GEOFFRÆA. See GEOFFROEA.

GEOFFREY, of Monmouth, bishop of St. Asaph, called by our ancient biographers Gallofridus Monumetensis. Leland conjectures that he was educated in a Benedictine convent at Monmouth, where he was born; and that he became a monk of that order. Bale, and after him Pits, call him archdeacon of Monmouth; and it is generally asserted, that he was made bishop of St. Asaph, in 1151 or 1152 in the reign of king Stephen. His history was probably finished after 1138. It contains a fabulous account of British kings, from Brutus the grandson of Æneas the Trojan to Cadwallader in 690. But Geoffrey, though we may blame his credulity, was not the inventor of the legendary history. It is a translation from a MS. written in the British language, and brought to England from Armorica by his friend Gualter, archdeacon of Oxford. But the achievements of king Arthur, Merlin's prophecies, and many speeches and letters, were chiefly his own additions.

GEOFFROY (Stephen Francis), M. D., a celebrated French physician, botanist, and chemist, born in Paris, in 1672. After having finished his studies he travelled into England, Holland, and Italy. In 1704 he received the degree of M. D. at Paris; and at length became professor of chemistry, and physician of the Royal College. He was F. R. S. of London, and of the Academy of Sciences. He wrote several very curious theses in Latin, which were afterwards translated into French; and a treatise entitled Tractatus de Materiâ Medicâ, sive de Medicamentorum Simplicium, Historiâ, Virtute, Delectu, et Usu. He died in Paris, in 1731.

GEOFFRŒA, or GEOFFROYA, in botany, a genus of the decandria order, and diadelphia class of plants; natural order thirty-second, papilionaceæ: CAL. quinquefid, the fruit an oval plum, the kernel compressed. Species three, the principal is,

G. inermis, the cabbage-bark tree, a native of Brasil and Jamaica. The wood is used in building; but it is chiefly valued for its bark, which is administered as an anthelmintic medicine. From this medical property it is also called the worm-bark tree. This bark is of a gray color externally, but black and furrowed on the inside. It has a mucilaginous and sweetish taste, and a disagreeable smell. It is given in cases of worms, in form of powder, decoction, syrup, and extract. The decoction is preferred, and is made by slowly boiling an ounce of the fresh dried bark in a quart of water, till it assume the color of Madeira wine. This sweetness is the syrup; evaporated, it forms an extract.

GEOGRAPHY.

GEOG'RAPHER, *n. s.* } Gr. γη the earth,
GEOGRAPH'ICAL, *adj.* } and γραφω, to de-
GEOG'RAPHY, *n. s.* } scribe. The science
GEOGRAPH'ICALLY, *adv.* } that treats or discourses of the earthly globe; its seas, nations, habits, customs, &c.

Methinks it would please any man to look upon a *geographical* map. *Burton. Anat. Mel.*

A greater part of the earth hath ever been peopled than hath been known or described by *geographers*. *Browne.*

The bay of Naples is called the Crater by the old *geographers*. *Addison.*

According to ancient fables the Argonauts sailed up the Danube, and from thence passed into the Adriatick, carrying their ships upon their shoulders: a mark of great ignorance in *geography*. *Arbuthnot.*

From sea to sea, from realm to realm I rove,
And grow a meer *geographer* by love. *Tickel.*

Minerva lets Ulysses into the knowledge of his country; she *geographically* describes it to him. *Broome on the Odyssey.*

GEOGRAPHY, as a science, embraces, together with a description of the earth itself, and its physical peculiarities, the consideration of all its great political and statistical divisions: the latter being sometimes detailed in systems; sometimes, as in gazetteers, alphabetically. It has its own history as a science, and it is intimately connected with all history.

As we regard society in its earlier stages, and the progenitors of mankind gradually peopling the earth, the materials of this science accumulate. The progress of the wanderers becomes bounded by this formidable mountain range, or that mighty ocean barrier: nations, and even races of men, are discriminated by the direction of the

greater rivers of the world, and their access to them; while their political and intellectual character, and even their moral and religious habits, are affected by the extent of their migrations, the intercourse they maintain with their parent tribes and with each other, and the climate in which they finally settle. When history becomes more important, the name and description of each groupe of human abodes are still more interesting.

As the circle of civilisation spreads and enlarges, the knowledge of distant regions becomes at once more exact and more widely diffused. Whether we trace its enlargement on a greater or less scale, as conducted by the emigration or extended dominion of the more enlightened tribes, or as connected with the enterprise and restlessness of individuals, man appears designed to multiply his accommodations by exchanging the varied advantages and productions of every part of the earth: and he either becomes, with his extended knowledge of them, more contented with his existing allotment on its surface, or stimulated to seek out for himself a better.

If even we contemplate the march of conquest, and the actual foundation which it has supplied of the existing political arrangements of the world, geographical information will be often found to have invited the successful expedition —always to have attended it. Ignorance, in fact, of the horrors of a northern winter, will appear to have providentially hastened the downfal of a modern Alexander; while Alexander of Macedon will be seen to have added greatly to our knowledge of the earth, by including some of the ablest of ancient geographers in his suite; charged with the duty of making observations on both the coasts and the interior of the provinces through which he passed. In their journals, it is well known, we find to this day some of the oldest and most important land-marks between the real and fabulous geography of Asia.

We propose to call the attention of our readers in this article to I. A History of the Progress of Geographical Discovery from the earliest periods. II. The Physical and Political Geography of the Globe. III. A Sketch of Technical or Artificial Geography.

PART I.

OF THE PROGRESS OF GEOGRAPHICAL DISCOVERY.

This will be found conveniently divided into the History of Ancient and Modern Geography; that is, the progress of this science as known to the ancient world, or until the period of the first Portuguese voyages; and its important and rapid advances since that period. The geography of the middle ages has no distinctive characters that require in this place particular consideration

Sect. I.—Of Ancient Geography.

Some portions of geographical knowledge are found amongst the most uncivilised tribes; but it is local, and confined to their own immediate haunts, or wild and visionary, associated with innumerable superstitions. The geography of the most ancient nations was long and necessarily of the former character: it was limited by the sphere of their own wants and their own experience. As mankind settled themselves in permanent abodes they had more time to become speculative about distant regions; as they spread themselves on the surface of the earth they acquired a real knowledge of its productions and peculiarities. It is easy to perceive how rapidly this kind of knowledge would thus be generated amongst men, considered as a whole, and that it would of necessity, as amongst the most useful, be found amongst the earliest of their acquirements: but mankind never long remained as a whole; there were the same means of geographical as of many other kinds of knowledge in the ancient, as in the modern world, but the difficulties of communicating and therefore of perfecting it were great, and the methods of perpetuating it few and very partially cultivated.

The antediluvian geography is altogether a matter of sacred history; for, while all nations retain traditions of the flood and its consequences, in the writings of Moses only have we any consistent account of either: to the few traces, therefore, of this the 'earliest dawn' of the science, preserved in those writings, we may at once refer the reader. It chiefly involves two or three curious questions of biblical criticism, such as the locality of Eden, the site of Ararat, &c.

Both before and after the flood the longevity of man was favorable to the diffusion and transmission of this and every other kind of knowledge; but the dispersion of mankind, according to the most approved construction of Gen. xi., would more than counterbalance this: they were now compulsorily the dependent and pilgrim beings they were so unwilling to acknowledge themselves; and, thinly peopling large districts, would soon lose the remembrance of a common origin. It is worthy of remark, however, that near the plains of Shinar, where Moses fixes the scene of their early attempt to settle themselves, and the point of their dispersion, the two earliest empires, Assyria and Babylon, were established; and a more central spot, from which all the countries first inhabited could be reached (including even China) cannot be found upon the earth.

The Egyptians are the earliest settled people of whose internal polity we have any account. Some writers have supposed that Misraim, which Moses informs us was its ancient name, is a word of dual termination, derived from Maser, a fortress; and consider it to designate the two Egypts, Upper and Lower. This is conjectural enough; but in the time of Abraham, 1920 years before the Christian era and above 1000 prior to the birth of Herodotus the father of Grecian history, we learn from the pentateuch that Egypt was a monarchy, under a king of the name of Pharaoh; under tillage, perhaps, or a corn country, and therefore a resort in famine: and after the lapse of about 200 years we find it under the same form of government, rich and well cultivated; possessing an established priesthood, whatever were their pretensions, who had a considerable landed property; and that the rest of

the lands were held in fee simple, as we should say, by the private occupiers. It had also a class of men styled in our translation 'physicians.' Its monarch was surrounded by a court and appointed officers. We read also of his chariots; and of waggons, vestures of fine linen, rings, gold chains, silver cups, and other traces of civilisation and opulence among the people.

The Phœnicians, less favored in regard to the soil of their country, are the first people of whose maritime expeditions we have any consistent account; their situation on the shores of the Mediterranean familiarised them to the sea; and so early as 600 years after the deluge, the navigation and commerce of Sidon (one of their cities) had acquired a celebrity that the patriarch Jacob mentions at the moment of his death, Gen. xlix. 13. At a later period these merchants founded colonies in Africa, Spain, and other countries of the Mediterranean; and even extended their navigation beyond the Pillars of Hercules into the ocean. It seems also certain that they navigated the Indian seas; for the ships of Hiram are said to have brought gold to Solomon from Ophir, which is generally thought to have been situated on the western side of that peninsula. They seem, indeed, to have been the early carriers of all civilised nations, and to have been as careful to conceal their discoveries as possible, that they might retain this monopoly.

We now come to the earliest traces of geographical knowledge among the Greeks. Homer, in the eighteenth book of the Iliad, describes the shield of Achilles as representing the cosmography of the age, and on it the earth is figured as surrounded by the sea, or rather by a large river, the sources of which Hesiod afterwards placed near the pillars of Hercules. The disk included the Mediterranean much contracted on the west, the Ægean and part of the Euxine seas, so that Greece is the centre of Homer's world. On the west, the geography of the poet did not extend beyond the kingdom of Ulysses, comprehending the isles of Same, Zacynthus, and some others, with a part of the neighbouring continent: beyond this his knowledge was vague and confined, and the strait which separates Sicily from Italy may be considered as the vestibule of his fabulous world; where the floating rocks, the howling of the monster Scylla, and the terrific Charybdis, all demonstrate that we are in the regions of romance.

Sicily, though known to Homer by its appropriate name of Thinacia (afterwards Thrinacra), is also peopled with wonders. Here he places the flocks of the sun guarded by nymphs; the Cyclops, and the Lestrygones Anthropophagi. In following the poet west of Sicily, we find ourselves in the regions of pure fable, amongst the enchanted isles of Circe and Calypso, and the floating domains of Eolus. It is, indeed, evident that Homer must have been almost totally ignorant of the geography of the Mediterranean, west of Sicily; for he makes Ulysses go from the Isle of Circe to the entrance of the ocean in one day, and allows him only the same time to return from the Isle of the Enchantress to the Strait of Sicily.

Following the poet to the north-east, we find him in like manner gradually immerging into the regions of fable. After passing through the Hellespont, &c., into the Euxine, he mentions the Halizones, a people possibly inhabiting the banks of the Halys, beyond whom are the Amazons, a nation of female warriors, to whose country succeeds the kingdom of Colchis, near the circumference of the disk, on which the poet places the palace of the sun, and the theatre of the amours of Apollo, with a daughter of the ocean.

The geography of Homer to the south-east is more rational: we find him acquainted with the whole west coast of Asia Minor; and not entirely ignorant of the country of the Phœnicians, whose purple stuffs, gold and silver works, naval science, avidity, and cunning, afford him the subjects of several strains; nor of Egypt, whose river he knew by the name of Egyptos, and of whose inhabitants he praises the medical skill. Between Egypt and the Pillars of Hercules the distance is much shortened, and is occupied by a country named Lybia, where, says the poet, 'the lambs are born with horns, and the sheep bring forth three times a-year.'

Above the earth, according to Homer, was a solid vault or firmament, under which the sun and moon performed their daily journeys in chariots rolling on the clouds. In the morning the luminary of day arose from the bosom of the eastern ocean, and in the evening sunk in the western; a golden vessel, the workmanship of Vulcan, during the night, transported him back by the north to the east. Beneath the earth the poet also placed a vault, named Tartarus corresponding with the firmament, where, in eternal night, dwelt the Titans, the enemies of the gods. Hesiod even determines the height of the firmament, and the depth of the gulf of darkness; an anvil, says he, would be nine days falling from the heavens to the earth, and as many descending from the earth to the bottom of Tartarus.

On the west, Homer's world was terminated by two fabulous countries. Near the sources of the ocean, and not far from the dismal caves of the dead, were the Cimmerians, an unhappy people, immersed in eternal darkness; beyond them in the ocean, and, consequently, according to the poet, beyond the limits of the earth and the empire of the winds and seasons, is Elysium; where neither tempests nor winter are ever felt, where the soft zephyr continually murmurs, and where the elect of Jupiter, snatched from the common lot of mortals, enjoy eternal felicity. Beyond this happy region, the earth was enveloped by an indefinite chaos; 'a confused mixture of existence and nothing; a gulf, where all the elements of heaven and Tartarus, of the earth and the ocean, were confounded; a gulf, dreaded by the gods themselves.'

Near the unhappy Cimmerians, and the ever blessed inhabitants of Elysium, Hesiod places the Macrobians, a people of large stature, adorned with all the virtues, and whose lives were prolonged to 1000 years at least; 'the nectar of flowers was their food, and the dew of heaven their beverage.' In the same neighbourhood this poet places the Arimaspes, a very clear-

sighted people though with but one eye; and the Griphons or guardians of the precious metals in the Riphæan mountains. As the geography of the west was extended, all these marvellous people were transferred onwards; the Cimmerians to Asia Minor and Germany, where two people were found with names somewhat similar, inhabiting the shores of the Cimmerian Bosphorus, and the Cimbrick Chersonesus. The Hyperboreans, another fabulous people of the Greeks, were successively transferred to an island which corresponds with Great Britain, and to the northern extremities of the earth, where they were made to inhabit a very agreeable country, explained by the days and nights being each six months long, or by the momentary proximity of the sun, when, according to the ideas of Homer, he passes during the night by the northern ocean to return to his palace in the east.

In the age of Homer indeed the Greeks were so little skilled in navigation, that the most trifling voyage was considered an heroic enterprise. Thus Menelaus employed eight years in visiting the Isle of Cyprus, Phœnicia, Egypt, and Lybia; and none but pirates ventured, he tells us, at the risk of their lives, to steer direct from Crete to Lybia.

The ancient and famous voyage of the Argonauts is founded on the Homeric cosmography. Jason and his companions, according to Hesiod, passing from the Mediterranean by the Euxine and Phasis into the Eastern Ocean, were prevented from returning by the same route, in consequence of the fleet of Colchis blockading the Bosphorus, and were obliged to make the circuit of the coast of the Ethiopians, and to cross Lybia by land, drawing their vessels with them. After a journey of four days, in this manner, they arrived at the gulf of Syrtis in the Mediterranean. Other ancient writers conduct the Argonauts back by the Nile, which they supposed to communicate with the Eastern Ocean, while later ones endeavour to reconcile the ancient tradition with the discoveries of their own times, and make them take a route by the Palus Mæotis and Tanais into the northern ocean, and round the supposed northern limits of the earth, by the west to the Strait of Hercules, by which they again enter the Mediterranean. Finally, when the non-existence of the communication between the Palus Mæotis and the northern ocean was proved, the Argonauts were supposed to have ascended the Danube; a branch of which was thought to empty itself into the Adriatic.

These vague geographical traditions were gradually, however, exploded by the foreign wars of the Greeks, and by the growing spirit of ambition, which obliged or induced a portion of them to seek new countries, and new sources of riches and power. The Milesians and Megarians formed commercial establishments on the Euxine. The Corinthians colonised Sicily, while the Phocæans, flying from oppression, settled in Sardinia, in Corsica, and in Gaul, where they founded Marseilles. Coleus, a Samian, driven out of his course by a tempest, passed the Strait of Hercules, and navigated the Atlantic. After visiting Tartessus, the Peru of these ages (probably a portion of the South of Spain), he returned to Greece with such riches as awakened the enterprise of other adventurers. The Phœnicians in vain attempted to check the navigation of the Greeks; the latter, on the contrary, appear to have procured some of the charts of that people, and Anaximander, a Milesian, first published a map of the world. He, however, compared the earth to a cylinder, Leucippus to a drum, Heraclitus to a boat, while others gave it a cubic form, and Xenophon and Anaximenes are said to have thought it a vast mountain whose base extended to infinity, and which the heavenly bodies illuminated by revolving round it.

Herodotus now, however, challenges the praise of narrating only what he saw himself or learned from ocular witnesses. He visited in the course of his long voyages and journeys the Greek colonies of the Euxine from the Bosphorus to the Phasis, but he adheres to the Homeric system in many respects. He describes the world as divided into three parts; but Europe separated, according to him, from Asia, by the rivers Phasis and Araxes and by the Caspian Sea, he supposes larger than Asia and Lybia taken together. He believes that a fleet sent by Darius circumnavigated Asia from the Indus to the confines of Egypt, while, with regard to Africa, he was unacquainted with any point between Carthage and the Pillars of Hercules. On the east coast, he was well acquainted with the shores of the Arabian Gulf, but makes this continent terminate considerably north of the equator. He has also preserved to us the traditionary relation of a voyage of the Phœnicians round Africa. With respect to the North of Europe, he knew that the Phœnican colony of Gadez received tin and amber from these regions, but could not fix the position of the Cassiterides, whence came the first of these objects, and was yet more ignorant of the country where they obtained the second.

A voyage of Hanno, prince of the Carthaginians, the descendants of the Phœnicians, was performed about the time of Herodotus. He sailed from Carthage to found colonies on the coast of Lybia, beyond the Pillars of Hercules, with a fleet of sixty vessels, each rowed by fifty oars, and escorting a convoy with 30,000 persons of both sexes. Some geographers limit the extent of Hanno's navigation on the coast of Africa to Cape Nun, others extend it to Cape Threepoints on the coast of Guinea. Major Rennell terminates it near Sierra Leone.

Hamilcar, in the same century, after a voyage of four months to the North, arrived at the isles Oystrymnides, probably Scilly, and on the coast of Albion. It seems also probable, that the Carthaginians had even before this discovered the Canaries. Aristotle speaks of an island, the beauty of which had drawn to it in his time such numbers of the Carthaginians, that the senate forbade any further emigration thither, on pain of death; and Diodorus mentions a similar discovery of them.

These ideas of a fertile distant island of the ocean, Plato found circulating in Egypt, and,

clothing them in his own poetic language, creates his celebrated Atlantic Island, 'the most beautiful and fertile country of the universe, producing abundance of corn and fruits of the most exquisite flavor; containing immense forests, vast pastures, mines of various metals, hot and mineral springs, in short, every thing necessary to the wants or pleasures of life. Its political government was admirable, being governed by ten sovereigns, all descended from Neptune, and who, though independent of each other, all lived in harmony; its commerce was flourishing, and it contained several large cities with a great number of towns and rich and populous villages. Its ports were crowded with foreign vessels, and its arsenals filled with materials for the construction and equipment of fleets. Neptune, who was the father, legislator, and god of the Atlantides, had here a temple a stade in length, covered with silver and ivory, and which contained a golden statue of the god, the height of the temple. The descendants of Neptune reigned over the island 9000 years, and extended their conquests over all Lybia to Egypt, and over Europe to Tyrrhenia, their incursions even extending to Greece, but here they were repelled by the Athenians. At length this warlike nation, after having rendered its name celebrated throughout the world, suddenly disappeared, an inundation, caused by an earthquake, submerging the whole island in a night and a day.'

About the time of the Peloponnesian war, Scylax collected the itineraries of the navigators of his time, and what has been preserved of the collection contains the coasts of the Palus Mæotis, the Euxine, the Archipelago, the Adriatic, and all the Mediterranean, with the west coast of Africa as far as the isle of Cerné of Hanno, or Fedalle, according to Gosselin. Beyond this, says the Greek, the sea is not navigable on account of the thick herbs with which it is covered.

Half a century after, Eudoxus of Cnide first applied geographical observations to astronomy; and Aristotle inferred about the same time the sphericity of the earth from the observations of travellers, that the stars seen in Greece were not visible in Cyprus or Egypt. The same philosopher supposed the coasts of Spain not very distant from those of India; and describes the habitable earth as a great oval island surrounded by the ocean, terminated on the west by the river Tartessus, (probably the Guadalquivir), on the east by the Indus, and on the north by Albion and Ierne.

Nearly in the century after Aristotle (B. C. 344) the voyage of Pytheas took place, respecting which great diversity of opinion exists amongst geographers. He is said to have departed from Marseilles, coasted Spain, France, and the east side of Britain, to its northern extremity; whence, still continuing his course to the north, after six days' navigation he arrived at a land called Thule, the situation of which is a great object of discussion: the most probable conjecture is that it is a part of the coast of Jutland.

We have intimated how important was the expedition of Alexander to the progress of this science. As well as the direct services performed by his suite, we owe to him our knowledge of the books previously buried in the archives of Babylon and Tyre, which were now by his order transferred to the city to which he gave his name; and thus the astronomical and hydrographical observations of the Phœnicians and Chaldeans became accessible to the Greeks.

Commercial enterprise soon after stimulated the Greeks to further exertion: the Marsellais, endeavouring to follow the route of Pytheas, visited the north; and Euthymenes, in a voyage along the west coast of Africa, arrived at a large river, probably the Senegal, which he described as similar to the Nile. At about the same period the Greek kings of Egypt caused a trade to be opened with India from the ports of Berenice and Myoshormos on the Red Sea; and Ptolemy Philadelphus sent geographers into Asia. In the same reign Timosthenes published a description of the known sea-ports, and a work on the measure of the earth. The navigation of the Indian seas, however, was at this time very imperfect; the Greek fleets continuing to creep along the shores as far as the Indus, but having their chief intercourse with the coasts of Ethiopia and Arabia Felix: the monsoons appear indeed to have been entirely unknown to them.

Hipparchus, it would seem, had some notions of India beyond the Ganges. He attempted to reduce geography to astronomical and mathematical bases; but, having few celestial observations, his map of the world is filled with erroneous hypotheses. He was the first who conceived the notion of a southern continent uniting Africa and India. Eudoxus of Cyzicus first suggested the possibility of sailing round Africa by the south. Strabo relates, after Possidonius, the grounds on which that navigator made this conjecture, and the voyage in which he found the prow of a ship, which came from the west, in returning towards the Arabian Gulf from India. But he never seems himself to have completed a voyage in that direction.

Polybius was the first Roman writer whose contributions to geographical science are of any importance. He himself examined the coast of Africa as far as Mount Atlas, and first ventured to think that the torrid zone might be habitable.

Strabo, at the commencement of the Christian era, formed a complete system of geography. He first describes Iberia (Spain), with the coasts of which he seems pretty well acquainted. Near them he places the Cassiterides or Isles of Tin, which according to one part of his writings, are north of the port of Artabres (Corunna), according to another parallel with Britain. For all the geographers of this period made Britain a triangular island, of which the southern point was but little distant from the northern coast of Spain. The Cassiterides were therefore evidently the Scilly Islands, long the Carthaginian point of refreshment in their visits to Britain for tin.

Strabo was not so well acquainted with the coast of Gaul, and still less with Albion and

Verne; the latter he says is reported to be altogether sterile and inhabited only by Anthropophagi. This is the last country of his geography towards the north, and, as he disbelieved the voyage of Pytheas, the continent of Europe terminated with him at the Elbe.

This writer was also but imperfectly acquainted with the north coast of Africa; for he makes the distance between Sicily and the pillars of Hercules only 13,000 stades. On the west coast his map is limited to about Cape Roxo, for he seems to have been unacquainted with Hanno's voyage, and on the east coast his knowledge did not extend, it would seem, beyond Cape Bandellans, his Noti Cornu or southern Horn. Thus the coasts of Africa were unknown beyond the latitude of 12½° N. Strabo places at the south-west extremity the Ethiopes Etherii, and at the south-east the region of Cinnamon. Between these extremes he admits but a small space, which the great heat had prevented being visited, and this extremity of Africa he supposed to be washed by the Indian and Atlantic Oceans, which here met: an opinion which maintained its ground against the idea of India and Africa being united, until the discovery of the Cape of Good Hope. Eastward the details of Strabo's geography seem only to have included the mouth of the Indus; though he had some conjectural knowledge of Taprobana (Ceylon), derived from the Greek expeditions to this neighbourhood.

It is only in the later years of the Roman republic that we find any accurate description of the Canaries amongst that people. This was given by Statius Sebosus; who collected at Gadez all the particulars which Sestorius and others who had previously fled from Rome thither had transmitted into Spain; and they now received the name of the Fortunate Islands.

In the first century of the Christian era appeared the Periplus of the Erythrean Sea, a work which marks distinctly the progress of discovery at this time on the coasts of Africa and India. The Noti Cornu of Strabo, no longer bounded the voyages undertaken along the eastern shores of the former continent, but they were extended to the port of Rapta and the isle of Menutias, corresponding with Bandel Velho and the island of Magadoxea. Beyond Rapta however, says the writer, 'the ocean is entirely unknown, but is believed to continue its western direction, and after having washed the south coast of Ethiopia to join the western ocean.' The Periplus gives a description of the west coast of India from the Indus to Ceylon, and mentions a part of the coast between Bombay and Goa as infested with pirates. The east coast of the Indian Peninsula is less accurately traced. India beyond the Ganges was known to the author of the Periplus only by report. This work however mentions the monsoon of these seas.

Great Britain seems to have been first ascertained to have been an island by the Roman fleet sailing round its north extremity, in the reign of Vespasian. Ireland also became at this period better known from the intercourse of the Imperial armies with the Britons. The Roman armies in the same century are thought to have reached the shores of the Baltic through Germany: they named this the Sarmatic Sea. The Cimbric Chersonesus of Ptolemy is evidently the Danish peninsula; the Codanus Sirius of Pliny, the Cattegat; and the isles of Scandiæ, east of the Chersonesus, the larger Danish isles and perhaps the coast of Schonen. The Nerigon of Pliny is probably a part of the southern coast of Norway.

Pliny, indeed, considers the Ganges as the north-eastern limit of Asia, from which he supposed the coasts to turn to the north and to be washed by the sea of Serica, between which and the pretended strait communicating from the Caspian Sea to the Scythian or Northern Ocean he admits but a small space: hence he supposes it possible, that some Indians might have been driven in a storm from their own coasts to those of Germany. In the system of Pliny, it therefore follows, that the ocean occupies the vast spaces of Siberia, Mogul, Tartary, China, &c.

Ptolemy's knowledge of the east coast of Africa was bounded on the south by the promontory of Pracum (Brava), and by the bay of Gonzales de Cintro on the west. He thought that to the south of this bay the coast of Africa, after first forming a gulf which he names Hespericus, extended indefinitely between the east and south to India. On the coast of that country beyond the Ganges he places a great gulf, now supposed to be the bight of Martaban, which on the east bounded the Golden Chersonesus; the Thinæ of this writer was the boundary of classical geography in this direction.

Two remarkable specimens remain of Roman itineraries. The first is that of Antoninus, containing merely, like our common road books, the names of the different places, and their distance from each other. The other, the Peutingerian Table, is of later origin, and professes to exhibit a map of the world. This is twenty one feet in length, and one foot broad. Every feature in fact, is increased immeasurably in one direction, and diminished as much in the other: the Mediterranean and Black Seas appear like rivers, rolling an amazing length; while the three continents are narrow strips of land through which they flow. In the longitudinal measures the space from Babylon to the Eastern Ocean occupies only one-eighth of the map, though it fills nearly half the space represented. In fact, the only object of this production appears to have been to exhibit the great roads leading from east to west through the Roman empire; and every other purpose of a map was sacrificed, if indeed at all contemplated, to this.

On the decline of the Roman empire, geography, with every other species of scientific knowledge, was committed, in the Christian nations, to the custody of monks and ecclesiastics. The only original work of cosmography that appeared between the second and sixth centuries, or rather the only one that has come down to us, is that of Cosmas, an Egyptian monk, who wrote about the latter period. He conceived of the earth as a vast square plain, surrounded by a wall which supported the vault of the firmament; and the succession of day and night as the effect of a great mountain placed to the north of the earth, behind which the sun conceals himself

every night. This system, differing only from that of Homer in the square figure of the earth, was adopted by many Christian writers of the middle ages.

The earth, in a chart constructed in 787, is represented as a circular planisphere, composed of three unequal portions; and beyond Africa to the south, there is said to be a fourth, which the extreme heat of the sun prevents us from visiting, and on the confines of which are the fabulous antipodes.

The followers of Mahomet, however, cultivated astronomy and geography more successfully. In the ninth century the Arabian navigators had visited China, Sumatra, Java, and other islands of the Malay archipelago, while on the eastern coast of Africa their religion was established from the Red Sea to cape Corientes. Edrisi, however, who composed a treatise on geography in 1153, seems to have been ignorant of the union of the Atlantic and Indian Oceans; for he depicts a large country extending from the coast of Africa to India beyond the Ganges. The navigation of the Arabs on the west coast of Africa does not appear to have extended beyond Cape Blanco; but they speak of an apocryphal voyage of discovery to the west, which at the best seems only to have extended to the Canary Isles.

All the Arabian geographers adopted the ancient idea of the earth being every where bounded by an ocean: one of them curiously enough compares it to an egg floating in water. Abulfeda, after Eratosthenes, describes the sea as terminating Africa immediately on the other side of the mountains of the moon. But their information respecting the Niger is the most curious. This they describe as the Nile of the Negroes, every where bordered by opulent states, and flowing from east to west into the sea.

Their countrymen, it is to be observed, had at this time subdued all Egypt and the northern coast of Africa, held by their descendants the Moors to this day. Hence by means of the caravans, which penetrated Africa then as now, their information on the subject of its interior geography was not so far behind ours as the distance of time would teach us to expect. Their arms, on the other hand, at the period of which we are speaking, had not yet penetrated up the Nile into Nubia; therefore all that tract of country, with Abyssinia, is described by them in a very confused manner. In Asia they occupied Persia, Cabul, Bukharia, and all the finest provinces of Hindostan. Thus they acquired very extensive opportunities of becoming acquainted both with the interior and eastern extremities of that continent. The provinces of Khowarezm and Bukharia are described in narratives, which form still our chief authority for the interior of those countries. India was divided into two parts, Sind and Hind, the former comprehending the western, and the other the eastern part of that vast region. Of the peninsula of the Decan, scarcely any thing was known except the coast of Malabar, considered as forming part of Sind, and along which the Arabs had sailed as far as Cape Comorin. Their Seranda is evidently the Indian name for Ceylon, and their Lamery is marked, by its productions of camphor, dyeing-wood, gold, ivory, &c. to be Sumatra; Java also is mentioned under the name of Al-Djavah. These geographers also knew that the Spice Islands were situated somewhere in this region. In Eastern Asia, Thibet is designated under the appellations of Tobbat or Alboton, and China under those of Cathay, and Tchin or Sin; the former denoting the northern, and the latter the southern provinces of that empire. Indeed all the regions, known to us as India beyond the Ganges, seem by them to have been comprehended under the name of Sin. But the northern extremity of Asia was a portion of the continent little known to these writers.

Perhaps we should not omit to notice, that they chiefly regarded it as the terrific abode of Gog and Magog, two enormous giants, who gradually retreated before the march of discovery. At this period their castle was seriously described as surrounded with walls of iron cemented with brass, and towers to the skies. Towards its base was a gate fifty cubits high, also of iron, and secured by enormous bolts and bars. The people belonging to these chieftains appear to have comprehended all those which extended to the north and north-east of Asia. Those of Magog, the most remote, are described as of small stature.

The Norwegians, about A. D. 860, discovered the Faroe Islands and Iceland. In the conclusion of the same century Othæ made a voyage from Norway to Biarma (the Dwina), or the White Sea, which is the first time we hear of the North Cape of Lapland being doubled.

In 952 an Icelandic nobleman devoted a period of exile from his country to voyages of discovery: and, having heard that land had been seen far to the west, he directed his course that way, and arrived at a verdant shore, to which he gave the name of Groen or Greenland, and which was shortly after colonised by the Icelanders and Norwegians.

Biorn, an Icelander, in 1001, sailing from Norway to Greenland, was driven upwards of 1000 miles to the south-west, where he discovered a country, to which, on a second visit, he gave the name of Winland, from the wild grapes he saw there. Five years after its discovery the Norman Greenlanders formed a colony in this country; and in 1121 Greenland sent a bishop hither to convert the pagan colonists; but from this period Winland becomes lost to the world; many modern geographers think it to be Newfoundland.

Important additions were made to the geography of Asia in the thirteenth century by Marco Paulo, a Venetian of noble birth. He penetrated by land to China, about 1270, and describes it in detail from his own observation. Of Japan he speaks from the accounts of others: but he visited the coast of Tsiompa, notices Great and Little Java, which seem to be Borneo and Sumatra, and the isles Necaurau and Angana, in the Bay of Bengal (Naucauvery, one of the Nicobars, and Andaman), the inhabitants of which, according to him, were anthropophagi, with the heads of dogs! India he describes throughout the east and west

coasts of the peninsula, between the Ganges and the Indus: but, on the east of Africa, his knowledge extended no farther than Zanguebar and the opposite part of Madagascar which he first made known.

ECT. II.—OF MODERN GEOGRAPHY.

The invention of the mariner's compass is the important connecting link between ancient and modern geography. The first person who availed himself of it is said to have been a friar and astronomer of Oxford, Nicholas Lynn, who steered to the northern isles of Europe with the new guide, A. D. 1360.

But the Portuguese have the merit of leading the way in that more extended career of maritime enterprise which has distinguished modern times. Early in the fifteenth century, in one of their voyages to the coast of Africa, Puerto Sancto, or the Holy Haven, the least of the Madeiras, was discovered; in 1432 another of their navigators was driven on the Azores, which were at first supposed to be to the easternmost of Marco Paulo's oriental islands. It was not, however, until 1471 that the equator was crossed, and the islands in the gulf of Guinea discovered. In 1484 they arrived at the river Zaire; and here the country was taken formal possession of for the king of Portugal, by virtue of a papal bull, obtained in 1432, from Alexander IV., an instrument which granted the full sovereignty and property of the countries of the Infidels discovered by his subjects, to that prince.

At length, the terrors of the torrid zone being gradually dissipated, a fleet was fitted out under Bartholemew Diaz for the express purpose of attempting the passage to India by the south of Africa. This commander coasted Africa to within sight of its southern point, to which he gave the name of Cabo de Todos los Tormientos, from the violent storms he experienced off it; but the want of provisions obliged him to return to Lisbon: and it was not until ten years afterwards (20th November, 1497) that Vasco de Gama had the honor of doubling the promontory. He now passed along the eastern coasts of Africa, through the Mosambique channel to Melinda, and arrived at Calicut six months afterwards.

In the interim Columbus (see our article AMERICA) had performed his first three voyages. Vaso Nunez, in 1513, first obtained a glimpse of the Pacific Ocean from the mountains of Darien, and gave it the absurd name of the South Sea; and two years afterwards the coast of South America had been explored to the southern tropic.

Between 1510 and 1515 the Portuguese had visited all the islands of the Malay archipelago to the Moluccas. But a discovery greater than any hitherto made was reserved for the Spaniards. In 1519 Magellan discovered and passed the straits which still bear his name: after which, sailing north-west across the Grand Ocean for three months and twenty days without seeing land, he fell in with an island in fifteen degrees south, and shortly after with another in nine degrees, to which he gave the name of Desaventurados, or Unfortunate, from their affording him neither water nor refreshments, when his crew were perishing with famine. From these islands, the situation of which is not exactly known, steering still to the north-west, he arrived at the group which he named the Ladrones, or islands of thieves, from the dishonest disposition of the natives; and thence directing his course to the west, on the Saturday of Passion Week he discovered what he called the Archipelago of St. Lazarus, but which were subsequently named the Philippines. The first of this archipelago that Magellan touched at was Cebu, with whose king he took part in a war against his neighbours, and was killed in an invasion. The squadron sailed thence to Borneo and the Moluccas; discovered Timor; and, after many disasters, one vessel only, the Victoria, the Admiral's ship, returned to Spain, round the Cape of Good Hope, arriving at Seville the 7th September 1522. This being the first ship that circumnavigated the globe, she was in great triumph drawn up into the city of Seville, and long preserved there. Her commander, Sebastian Cano, was ennobled, and received orders to wear for his coat of arms, a terrestrial globe, with the motto 'Primus circumdedisti me.' On their return to Spain the companions of Magellan were not a little surprised on being the first to realize the well-known problem of losing a day in sailing round the world westerly.

The progress of discovery was now rapid: the Portuguese would appear to have reached New Guinea, and even New Holland, between 1530 and 1540. Passing over minor discoveries of the Spaniards in the Pacific, in 1577 we find our own countryman, Drake, first conspicuous in this noble career. He obtained a commission from queen Elizabeth, by virtue of which he equipped a squadron of five vessels, the largest only 100 tons and the smallest fifteen, with a complement of 104 persons. With this small force he sailed from Plymouth the 15th of November, 1577, entered the Strait of Magellan the 20th of August the next year, and cleared it the 6th of September: an extraordinarily short passage, for no navigator since has been able to accomplish it in less than thirty-six days. Having coasted the whole continent to the north extremity of Mexico, and being laden with the spoils of the enemy, he determined to seek a northern passage into the Atlantic. In this pursuit he sailed along the coast to which, from its cliffs, he gave the name of New Albion, and took possession of it in the usual form for England. At Cape Blanco he found the cold so great, that he gave up the search of a passage by the north, and crossed the Pacific to the Molucca Islands, in which long route his only discoveries were some islands in twenty degrees north, which have not been since identified: and, after an absence of 1501 days, arrived at Plymouth, the 3d of November, with only his own ship and fifty-seven men.

Drake was followed by Cavendish, Schouten, Quiros, Dampier, and other celebrated navigators, who each touched that numerous archipelago which stretches across the Pacific at different points. Meanwhile Cabot having discovered Newfoundland, Cortereal, a Portuguese navigator, followed him to the north of Hudson's

Bay, to which he gave the name of the strait of Anian, and to the country that of Tierra de Labrador. It was now concluded that India might be reached in this direction; and a large extent of the north-west coast of America was explored by the Spaniards from California. The attempt to find a passage in this direction was afterwards made from the opposite side by Frobisher, Davis, and Baffin, who explored in this way the great bays of Hudson and Baffin, the coast of Greenland, &c.

Nor was the Frozen Ocean of Northern Asia neglected during this period. The English and Dutch made vigorous exertions to open a passage through the icy barriers of that ocean; and discovered Nova Zembla, the strait of Waygatz, and Spitzbergen. Russian travellers also penetrated to Okhotzk, on the eastern shore of the continent; and Beering finally rounded the eastern shore of Asia. The extent and boundaries of the Pacific were now the most unascertained problems in geography. A vast continent was still supposed to surround the South Pole; and in the north the separation of Asia and America was doubted. At this period our immortal Cook commenced his survey of this vast expanse of waters. He completely established the non-existence of a southern continent; examined the north-west coast of America, and the eastern coast of New Holland, and sailed round New Zealand. He also discovered New Caledonia, and made Europe acquainted with those interesting groups the Society, the Friendly, and the Sandwich Islands. See Cook. A succession of French and English navigators, Perouse, Vancouver, Labillardiere, Flinders, Wilson, &c., followed, and completed the survey of the large islands which have been sometimes denominated Australasia. The issue of their researches meets us in every part of our Gazetteer.

After all, large portions of terra incognita invite to future efforts. The interior of Africa or Asia, but especially the former, is little known: America has been more fortunate. We must still, however, not forget the obligations of science to a Park, Browne, Barrow, Lucas, Tuckey, Houghton, Denham, &c., with regard to the first of these objects; the efforts of Messrs. Elphinstone, Hodges, Kenneir, Malcolm, and Mercer, with regard to the second; or that the spirit of enterprise and discovery is roused to a greater extent than ever throughout the civilised world. The result cannot fail to give increasing interest to the study of this science.

At the head of the writers on modern geography may be placed Sebastian Munster, the author of a valuable Cosmography, of the sixteenth century, and who has been called the Strabo of Germany. Next in order stands the Thesaurus Geographicus of a Fleming of the name of Ortelius, a work of considerable and laborious research; while superior to both in importance is Mercator's edition of Ptolemy's Geography, and the improvement he made in the construction of maps. The chart which bears his name was invented by him about the year 1557; but the true principles of its construction were first given by an Englishman of the name of Wright in 1599. Mercator was also a Fleming.

In the seventeenth century the whole science was revolutionised by the successive efforts of the erudite Cluverius, the well-informed astronomer Riccioli, and the profound Varenius. Sir Isaac Newton, it is well known, translated and commented upon the works of the last of these writers. Ancient geography was also systematised at this period by Cellarius; while maps were much improved in France by Sanson, in Holland by Blaew, and in Sweden by Burœus.

One of the greatest geographical names in the last century is that of D'Anville. He greatly improved the method of comparing ancient and modern geography, abolished many foolish and arbitrary modes of delineation; and accomplished a complete reform in the historical part of the science. Statistical science in the mean time received an increased share of attention, and has been much indebted to the accurate Busching and his successors; among whom may be mentioned Bruns, Ebelins, and Wahl. Other continental geographers of eminence in the eighteenth century were Delisle, Cassini, Lacaille, and Lalande, who, with several of their fellow-contributors to the papers of the French Academy, much advanced the mathematics of the science; Gosselin, Voss, Mannert, and Le Brun. We may also mention among the most distinguished of modern names in this science, our own countrymen Major Rennell, Dr. Vincent, and the late Mr. Pinkerton.

PART II.

OF PHYSICAL AND POLITICAL GEOGRAPHY.

The *physical* geography of the world, would in strict language embrace a complete description of its internal and external organization and productions. Other sciences, however, take up the greater part of the details of these multifarious topics: geography only glances at them generally, and in their great outlines. Its principal topics are 1. The earth; 2. The ocean and waters; 3. The atmosphere; 4. The animal tribes; and, 5, The vegetable productions. Metals and minerals will be fully disposed of in the following article Geology; or in Metallurgy or Mineralogy.

Political geography regards the general state of human society in the several divisions of the globe. This has been divided into the savage, the barbarous, the half civilised and civilised states. These are again diversified by the political institutions of each part of the world. On the whole we feel that this is a topic which it is impossible to treat correctly, but in detail; and therefore refer the reader to the successive accounts of the political state and institutions of each portion of the globe; as they will be found in the body of this work.

1. Of the *earth*. Geology and mineralogy explain the formation and value of the various strata of which what we know of the earth is composed.

This is indeed but little. The deepest excavations that have been made by art do not exceed 2400 feet, which is less than half a mile, i. e. about $\frac{1}{2000}$th part of the diameter of the earth; so that

whatever lies below that depth is utterly unknown. We need here only observe that the substances which have been extracted from those excavations are not in general of a nature different from those which in some particular places have been found immediately upon the surface. The mean density of the earth, according to the observations of the late astronomer royal Dr. Maskelyne, is four and a half, reckoning water, as usual, the standard of comparison. In this calculation Dr. Hutton also coincides. The late Mr. Cavendish assigned a greater quantity, or about five and a half, from an elegant experiment on the principle of torsion. Perhaps the true proportion would be found to lie between these limits.

The most obvious natural division of the earth's surface is into sea and land; about seven-tenths of it being occupied by water, although to what comparative depth is unknown. The remaining three-tenths consist of land, elevated more or less above the level of the sea, interspersed in some parts with small collections of water, at various heights, and, in a few instances, somewhat lower than the surface of the ocean.

There is no regular plan or principle on which the relative distribution of land and water seems at present to be made. Le Brun's Precis de la Geographie Universelle, thus calculates the proportion of dry land in the two hemispheres.

In the northern frozen zone .	0,400
temperate zone.	0,559
northern tropic.	0,297
In the northern hemisphere .	1,256
In the southern frozen zone .	0,000
temperate zone	0,075
southern tropic	0,312
In the southern hemisphere .	0,387

According to Mr. Myers, if the distribution of land be considered with respect to the two hemispheres (London and our antipodes being taken for the poles of the hemisphere), formed by the equator and the zones, into which they are divided, the quantities will be found to be nearly in the following proportions, where the area of each zone respectively is taken for unity.

In the northern part of the torrid zone	·297
In the northern temperate zone .	·559
In the northern frigid zone .	·400

The same estimate for the southern hemisphere, gives,

In the southern part of the torrid zone	·312
In the southern temperate zone .	·075
In the southern frigid zone .	·000

By adding the numbers of the respective zones together, and dividing each sum by 2, we may obtain the proportion of land and water in each.

The whole of the torrid zone being 1, the land is	·3045
Two temperate zones being 1, the land is	·317
Two frigid zones being 1, the land is	·200

From these calculations, it is easy to ascertain the proportional quantities of land and water in each, when the whole surface of the earth is represented by unity. The respective numbers for the quantities of land are, for the

Whole of the torrid zone .	·121191
The two temperate zones .	·164523
The two frigid zones . .	·0166
The total proportion of land	·302314

This writer calculates on the above basis that there are on the entire surface of the globe 4,988,181 square leagues of land; and 11,511,819 square leagues of water; the northern hemisphere containing more than three times the quantity of land which is in the southern.

The great outlines of the land are diversified in a very remarkable manner. All the great promontories, both in the Old and New World, excepting the peninsulas of Jutland and Yucatan, are directed towards the south. Those in the Old World have been thus enumerated; Scandinavia, Spain, and Portugal, Italy, Greece, Africa, Arabia, Hindostan, Malacca, Cambodia, Corea, and Kamtschatka: those in the New are California, Alaska, Greenland, Florida, and the whole of South America. There seems to be no other uniform feature in the general outline of the masses of land.

The character of its elevations may be considered as professor Jameson suggests under the denominations of high and low lands. 'In Europe,' he says, 'we find but two high lands, and one low land. The one is the great European or Southern, the other is the Scandinavian or Northern. The one has its middle point in Switzerland, in the Tyrol, and in the Alps of Savoy. Hence it passes through three-fourths of France, traverses the whole of Spain and Portugal, includes nearly two-thirds of Germany, passes through the greater part of Italy, and also part of Hungary and Turkey, and terminates on the borders of the Black Sea. The course of this high land determines that of the great low land. Saxony lies nearly on the border of this low-land or plain. It passes through the north part of Saxony to the east or Baltic Sea. It also passes by the foot of the rocky mountains through the upper part of Westphalia, and further through the whole of Holland, the Netherlands, and a part of France; it even reaches the east coast of this island. It extends very considerably towards the north, including in its course Prussia, Poland, and nearly all Russia in Europe, and reaches to the Uralian Mountains, including the greater part of Moldavia. The other high land rises in Norway and Sweden, comprehends a portion of Russia, and extends with some interruption to the Uralian Mountains.'

In the New World we find, however, the most remarkable and largest continued range of elevated land, stretching from Cape Horn to Bhering's Strait. Through the whole of South America this range is within a short distance of the Pacific Ocean, and contains the most magnificent elevations. Chimborazo, near the equator, is its highest point; whence it declines on one side to the southern extremity of the continent and on the other to the straits of Panama. In Mexico this chain assumes its former volcanic character and majestic height. Then in a north-

west direction it declines again to the height of about 5000 feet, till at its northern extremity appears the lofty Mount St. Elias. On the eastern side of this continent, another chain runs parallel to the Atlantic; and forms the Alleghany and Appalachian Mountains, at the back of the United States. North America is thus divided into two high, and three low land, districts. Of the latter the two which are between the mountain chains and the ocean, particularly that which borders on the Pacific, are the narrowest. The third, which occupies the space between these chains, is of great extent; is partly occupied by the noble lakes of the interior, and watered throughout with the finest rivers in the world. In a similar manner we find in South America the sloping plain between the Andes and the Pacific Ocean is contracted to the breadth of only a few miles, while that which borders on the Atlantic expands far into the interior. Here again the low land of the central regions is interrupted by a branch of the Andes which separates various branches of the Maranon from those of the La Plata: then it expands to the north-east, and on the one side gives egress to the largest river on the globe; while far to the south, on the other, it supplies the mouths of the La Plata with their mighty collection of waters.

Humboldt considers the mountains of Kamtschatka and of north-eastern Asia, as a prolongation of the western chain of America. Their long south-western continuation, known as the Slanovas, the Yablonay, and the Altaic ranges, extends through the greater part of Asia, till, in approaching the sea of Aral, it meets another chain from the south-east, which, under the names of Hemalleh and Hindoo Coosh, has been supposed to include the loftiest summits in nature. In traversing Persia these chains descend considerably, but throw up immense masses in Armenia, Asia Minor, and the frontier of Syria.

These ridges, it is worthy of remark, form Asia, like America, into three low lands, of which the first, between Hemalleh and the Indian Ocean, consists of the maritime provinces of Persia, of Hindostan, and India beyond the Ganges; the second, between the Hemalleh and Altai Mountains, includes Bukharia, the great desert of Shamo and Cobi, and the greater part of China; the third, stretching from the Altai to the Northern Ocean, is composed of the bleak plains of Siberia.

In Africa only this species of distinction becomes uncertain. The Atlas at the north-western extremity rises to a great height, but it sinks entirely before reaching the eastern coast. To the south extends an immense plain, composed chiefly of sandy desert: and at its termination are found two very high ranges of mountains, running inwards, one from the eastern and the other from the western coast, which are generally supposed to unite and form a continuous chain across the continent. Similar ranges extend behind Congo and Monomopata; and the southern extremity of Africa defends itself by a high mountain wall against the expanse of ocean which it overlooks. But the limits of mountain and plain, throughout all this part of Africa, are wholly unknown.

It has been remarked, from this general view of the earth's surface, that the principal chains of America and Asia are arranged in a species of irregular arch; and that it is not improbable, if we could connect the mountains of Arabia with those of Abyssinia and central Africa, they would form a continuation of the same figure; the whole being ranged around the shores of the great ocean, in a species of semicircle corresponding to that formed by the shores of the three continents; and forming the common mighty bulwark of nature against the encroachment of the seas.

Some modern geologists contend that the series of rugged and elevated peaks which we find in some of these extensive chains, has always its base in granite rock; while the gentler and more uniform declivities are generally gneiss formations. See our article GEOLOGY.

Baron Humboldt mentions one remarkable difference between the formation of the mountains in the Old and New Worlds. Mont Blanc and others of the higher Alps rear their peaks of granite above the clouds. But, in America, 'the newest flœtz trap, or whinstone, which in Europe appears only in low mountains, or at the foot of those of great magnitude, covers the mightiest heights of the Andes. Chimborazo and Antisana are crowned by vast walls of porphyry, rising to the height of 6000 or 7000 feet; while basalt, which in our continent has never been observed higher than 4000 feet, is, on the pinnacle of Pichincha, seen rearing aloft its crested steeps, like towers amid the sky. Other secondary formations, as limestone, with its accompaniment of petrified shells and coal, are also found at greater heights in the New than in the Old World; though the disproportion is not so remarkable in these.'

Volcanoes, one of the great physical distinctions of mountains, occur most commonly in the islands and promontories of the Old World unconnected with the principal chain; but penetrate every part of the New. These observations, however, must only be taken generally: the following is Mr. Jameson's statement of the relative situation of all the principal ones:—

Continent of Europe . . .	1
European Islands	12
Continental Asia	8
Asiatic Islands	58
Continent of America . . .	97
American Islands	19
Total	195

Vesuvius is the only one on the continent of Europe; those in the islands are chiefly in Iceland, Sicily, and Stromboli. The volcanoes of continental Asia are on the peninsula of Kamtschatka, and on some of the islands between that point and Sumatra. No volcano has yet been discovered on the continent of Africa. Upon the subject of earthquakes, as connected with volcanoes, see our article EARTHQUAKES.

The low lands are divisible into valleys or river districts and plains: under the former we classify those fertile tracts generally bordered by hills or mountains, and sloping toward a middle

point or line where a river runs; often of considerable magnitude, and fed by the mountain streams.

The larger plains, which are neither interrupted by mountain or river, are necessarily sterile, and consist generally either of hard, unproductive clay land, or loose sand, as in the torrid regions of Africa; the central parts of Persia, &c.

2. *Of the Ocean and Waters of the Earth.*—The immense body of terrestrial waters is divisible into two great basins. That which may be denominated The GREAT ATLANTIC basin; and The GREAT PACIFIC, or Grand Ocean, as it has been called; for it has strictly no particular relation to any quarter of the globe.

I. The Great Atlantic basin will include the Northern Frozen Ocean, or Arctic Sea, surrounding the North Pole, and washing the northern extremities of both the old and new continents. Its other branches in this part of the world are the White or Lapland Sea, and Baffin's Bay. This noble expanse of water now separates Europe and Africa from America, and is limited on the south by a line drawn from the Cape of Good Hope to Cape Horn. The portion of this ocean north of the tropic of Cancer to the polar circle is the North Atlantic, that south of the tropic of Capricorn the South Atlantic, and that included between the tropics the Equinoctial Atlantic.

The branches of the North Atlantic on the side of the old continent are, 1. The *Sea of Norway*, comprised between the coasts of Norway and Iceland, and the Zetland and Ferroe Islands, extending from the Polar Circle to the sixtieth degree. 2. The *British Sea*, between Great Britain and the continent from the sixtieth degree to the Strait of Dover. The name of *North Sea* given to this branch of the Atlantic, first probably by the Dutch, in whose country alone it is applicable, has been generally adopted by the French and English, particularly in their sea charts; it is also frequently designated by its ancient name of the *German Ocean*. 3. The *Baltic*, which communicates with the British Sea by the *Seagerack* and *Cattegat*, the former of which may be confined to the space between the south coast of Norway and the north-west coast of Jutland, which extends nearly north-east and south-west; leaving the *Cattegat* as a discriminating turn for the channel between the east coast of Jutland and the coast of Sweden. 4. The *English Channel*, separating England and France. 5. The *Irish Channel*, sometimes improperly called the *Irish Sea*, separating Great Britain and Ireland. 6. The *Bay of Biscay*, washing but twenty leagues of the coast of Biscay, while it has 120 leagues of the coast of France, should receive the name of the *Gulf of France*. 7. The *Mediterranean* is the last branch of the North Atlantic on the side of the old continent, and the Equinoctial Atlantic on this side has only the *Gulf of Guinea*, between capes Palmas and Negro.

On the American side of the North Atlantic, the branches are, 1. *Davis's Strait*, separating the southern extremity of Greenland from the continent of America, and forming the entrance into the *Bay of Baffin*, *Barrow's Straits*, &c. 2. *Hudson's Bay*, which is properly a Northern Mediterranean sea.

On the American side of the Equinoctial Atlantic are the *Gulf of Mexico;* and the *Caribbean Sea*, running between the West India islands and the continent of America.

Round the promontory of Africa is the *Indian Sea*, one of the most extensive and important branches of this division of the ocean; bounded on the west by the east coasts of Africa and Arabia, on the north by India, on the east by the west coast of New Holland, or Terra Australis, and the Great Asiatic Archipelago, and on the south by a line drawn from the Cape of Good Hope to the south-west point of New Holland. The branches of this sea on the west are, 1. The *Channel of Madagascar*, or of *Mosambique*, separating the island of Madagascar from the continent. 2. On the north-west the *Great Gulf of Arabia*, or *sea of Oman*, the limits of which are capes Guardafui and Comorin. The *Red Sea* and *Gulf of Persia* are branches of the Great Gulf of Arabia.

The north-east extremity of the Indian Sea forms the *Bay of Bengal*, which with more propriety would be named the *Gulf of Indostan;* its limits are the south point of Ceylon and the north-west point of Sumatra. On the east the Indian Sea forms a large gulf between the Sunda Isles on the north, and New Holland on the south.

To the east of the Indian Sea, and within the tropics, are several portions of the ocean, forming seas enclosed by the Malay Archipelago; as the *China Sea*, the seas of *Java*, *Celebes*, and the *Moluccas*. The collective name of the *Sunda Sea* has been given to the last three.

II. The second great basin we have noticed separates Asia from America. It has the general denominations of South Sea and Pacific Ocean; but the more appropriate name of *Grand Ocean* has been proposed for this great basin by M. Fleurieu. The great divisions of this ocean are, 1. The *Great Northern Ocean*, extending from the Arctic Circle to the Northern tropic. 2. The *Pacific*, or *Grand Equinoctial Ocean*, included between the tropics. 3. The *Great South Sea*, extending from the southern tropic to the south cape of Van Diemen's Land and Cape Horn.

The *Great Northern Ocean* has several branches; the first of which to the north is comprised between the north-east extremity of Asia, the north-west extremity of America, and the Aleutian Islands, for which has been proposed, with great propriety, the name of *Bhering's Basin*, from the navigator who first visited it. On the coast of Asia to the north-west it forms the *Gulf of Anadyr*, and on that of America to the south-east the great *Bristol Bay* of Cook. On the coast of Asia to the south, we now meet a series of internal seas from Kamtschatka to Formosa; the first bounded by Kamtschatka on the east, and by Russian Tartary, or Siberia, on the west and north, is named by the Russians, the *Sea of Ochotsk*, from a miserable town and river on it, and the *Sea of Lama* by the Tongouth Tartars who inhabit its shores; in some geographies it is also called the Sea of Kamtschatka; as more appropriate, we propose to name it the *Sea of Tartary*, and to leave that of *Gulf of Ochotsk* to its western extremity.

The second of the interior chain of seas, called

the *Sea of Japan*, is bounded by Chinese Tartary on the west, by the island of Sagalin on the north, and by the Japan Islands on the east and south: it has been called, with propriety, the *Sea of Japan*.

Southward this sea communicates with a third internal sea by the *Strait of Corea*. The gulf which it forms on the north, between Corea and China, is called by the Chinese the *Yellow Sea* (Hoang-hai), from the muddiness of the water, but which may with more propriety be named the *Gulf of Corea*. The Chinese (from the clearness of its waters) give the name of *Blue Sea* to the portion of the sea of Corea, between the south coast of the Peninsula and the island of Formosa.

The Pacific or Grand Equinoctial Ocean has several branches included between the chains of islands from Formosa on the north-west to New Caledonia on the south-east, which Mr. Tuckey has arranged under the following nomenclature. 1. The space between Formosa and the Philippines on the west, the chain of Mariannes on the east, and the Pelew Islands on the south, he proposes to call the *Philippine Sea*. 2. The space between the chain of New Philippines or Carolinas (of which the Pelew Islands are the western extreme) on the north, Lord Mulgrave's range on the east, and New Guinea and Solomon's Islands or the Papua Archipelago on the south, he calls the *Papua Sea*. 3. To the space of the Grand Ocean comprised between the Papua Archipelago on the north, Terra Australis or New Holland on the west, the New Hebrides, New Caledonia, and New Zealand on the east, he gives the name of the *Sea of New Holland*, or of Australia. At its north-west extremity, it forms the *Gulf of Louisiade* of Bougainville, which by *Torre's Strait* communicates with the *Gulf of New Holland* and the Indian Sea.

On the coast of America south of Behring's basin the Grand Ocean has but the three gulfs formed, 1. By the peninsula of Alaska on the west, and the continent on the north and east. 2. That formed within the peninsula of California, called by the Spaniards the *Vermilion Sea*, and sometimes the *Gulf of California*. 3. The *Gulf of Panama*, between North and South America. The *Great Southern Ocean* and the *Southern Frozen Ocean* may be considered as the last grand divisions of this basin.

Lakes form, from their occasional magnitude, the next topic of our consideration. Those which have no visible communication with the sea, and form the final receptacle of rivers, are the Caspian and the Lake Aral, already noticed, in the heart of Asia. Similar ones have been reported to occupy part of the interior of Africa, but they have not yet been found. The great lakes of North America have already been adverted to, in our article of that name; it may suffice to notice here that the St. Lawrence sweeps through them all; and that South America presents us with no lake of comparative magnitude. That of Chucuito or Titiaca, in Peru, is the only one worth noticing.

The great *rivers* of the earth descend usually from the upper part, and fall down the opposite sides of a chain of mountains. Their channels are broad or steep in proportion to the quantity of water, and the level of the district through which they run. The principal rivers that have great periodical inundations, are, the Nile, the Senegal, the Euphrates, the Indus, the Ganges, the rivers of Pegu, of Siam, and of Cambodia, the Amazons and Plata, and, in general, all the great rivers within the tropics; the cause of these inundations being the heavy periodical rains in the equatorial regions. In several of these large rivers a phenomenon is observed, caused by an extraordinary strong ascending tide repelling the current of the river, when the conflict produces a mountainous ridge of water, capable of sweeping large ships from their moorings.

Many great rivers of slow current form bars of sand across their mouths, as the Nile, the Senegal, &c.; while others rush with such rapidity, and volume to the sea, that they freshen and discolor its waters for many leagues; as the Danube, the Plata, &c.

The velocity of rivers depends more on the weight and quantity of the anterior waters than on the declivity of their beds. Hence the stream of a river, whose bed has twice the declivity of another, does not move with twice the velocity only, but with treble or quadruple that velocity, according to the volume of its waters. If, therefore, we intend to give greater velocity to a river or canal, by deepening its bed, the greatest declivity should be near the head, diminishing almost to a cypher at its mouth, as is naturally the case near the mouths of large rivers, where, though the declivity of the bed is imperceptible, the velocity of the stream is increased by the accumulated weight of the anterior waters: some rivers are even known to acquire so rapid a movement, as not only to retain their velocity across a considerable extent of level ground, but also to surmount an eminence without spreading much.

The following is major Rennell's estimate of the proportional courses or lengths of the great rivers of the globe, taking the Thames as *unity*:

EUROPE.		ASIA.	
Thames	1	Oby	10½
Rhine	5¼	Amour	11
Danube	7	Lena	11½
Wolga	9½	Hoanho	13½
ASIA.		Kian Keu	15½
Indus	6¾	AFRICA.	
Euphrates	8½	Nile	12½
Ganges	9½	AMERICA.	
Burrampooter	9½	Mississippi	8
Ava River	9½	Amazons	15¾
Jenissei	10		

Waters impregnated with saline and mineral particles, warm springs, &c., are so few, and have generally such remarkable local peculiarities, that we at once refer the reader to their alphabetical places for a description of them. For the phenomena of tides and currents, see TIDES and SEA CURRENTS.

3. *Of the atmosphere.*—To the articles AIR, ATMOSPHERE, and CLIMATE, we may also refer the reader for every thing important in the consideration of this great element of our earthly sys-

tem. M. Humboldt's isothermal lines, the greatest modern improvement in the consideration of climates, are inserted in the last article; the manner in which these, however, affect congelation, is by no means uniform. Radiation and various local circumstances must be taken into account. Thus on the side of Chimborazo, near the equator, the line of perpetual congelation is found to be at the height of 15,746 feet; and in the 20° of north latitude, on the Mexican mountains, 15,090 feet, giving a difference in 20° of latitude of only 656, when professor Leslie's table would teach us to expect 1729 feet. In Tartary, again, according to the late observations of captain Webb, fine pastures are found on the Sutledge river at an elevation of 15,000 feet above the level of the sea; while, on Mont Blanc, the line of perpetual snow is marked by Saussure at 8640 feet. At 16,814 feet, not a vestige of snow appeared, according to the foregoing writer, on the Nittie Pass of the great Himalaya chain. The principal circumstances that had been previously observed on the subject, are thus brought together by baron Humboldt:—

	Torrid Zone.		Temperate Zone.				Frigid Zone
	Lat. 0 deg. Andes Quito.	Lat. 20 deg. Mount of Mexico.	Caucasus Latitude 42½ deg.	Pyrenees Latitude 42¾ deg.	Alps. lat. 45½ to 46 deg. N. Aspect	Alps. lat. 45½ to 46 deg. S. Aspect.	Lat. 57½ to 78 degrees. Lapland.
Inferior limit of perpetual snow . .	2460 fath.	2350 fath.	1650 fath.	1400 fath.	1370 fath.	1370 fath.	550 fath.
Mean annual temperature at that height	34·7°			25·7°	24·8°		21·2° Fahr.
Mean temperature of winter at that height	34·4°				14°		4·9°
Mean temperature of August at that height	35·15°				42·8°		49·1°
Distance between trees and snow .	660 fath.	350 fath.	650 fath.	230 fath.	450 fath.	320 fath.	300 fath.
Upper limit of trees	1800 fath.	2000 fath.	1000 fath.	1170 fath.	920 fath.	1050 fath.	250 fath.
Last species of trees towards the snow	Escalonia Alstonia.	Pinus occidental.	Betula alba.	Pinus rubra Puncin.	Pinus abies.	Pinus Larix.	Betula alba.
Upper limit of the ericineæ . . .	Bifariæ (1600 f.)		Rhodod. caucas. (1380 f.)		Rhodod. ferrug. (1170 f.)		Rhodod. Laponicum. (480 f.)
Distance between the snow and corn .	860 fath.		630 fath.		700 fath.		450 fath.

4. *Of the animal tribes.*—Over a considerable portion of the globe we find the Linnæan *vermes* diffused; while the zoophytes and marine insects, those particularly which produce coral, are restricted to particular regions; the latter, generally, to the torrid zone of the Pacific and Indian oceans. The haunts of insects, and the brilliant plumage of the feathered tribes, belong to the same warm climates. The former are both more numerous and of incomparably more annoying qualities in the torrid, than in temperate zones. Here they lay waste whole regions over which they pass, driving the inhabitants before them, with the fury of a tempest; and particularly wherever forests and moisture abound in these climates, they swarm in countless myriads. In these regions also the reptile and lizard tribes arrive at a fearful perfection. Here also fish of the largest size, the most ferocious habits, and most brilliant colors are found. The shark of the tropics is said to be unequalled in rapacity in any other region, and to rival even the wild beasts of the forest in that respect. Migratory fishes abound chiefly in the northern regions, and descend toward the equator. In the higher latitudes of those regions, also, the finny tribes attain their greatest magnitude.

Birds in the peculiarity of their food, as well as their plumage, indicate the regions to which they belong. The vulture and eagle haunt the highest peaks over which animal life is ever found to hover—the Cordilleras of the Andes, and the summits of the Alps and the Appenines;

the sea-eagle, or osprey, is more common. The temperate zone is remarkable for the migration of birds as well as fishes; the stork and the crane, as well as the swallow, instinctively selecting their summer as well as winter abodes, and the same individual birds sometimes returning in spring to the same nests they left in autumn. The parrot tribes seem confined to the East Indies, the south-east of Asia, and the shores of Western Africa; while the celebrated birds of Paradise are found in New Guinea and its neighbourhood alone.

M. Humboldt has asserted, and is confirmed in it by the distinguished naturalist Latrielle, that no quadruped, terrestrial bird, and hardly any insect is common to the New and Old worlds. We must beg leave, however, to doubt the correctness of this last item. See our article ENTOMOLOGY. There are, at any rate, certain useful animals which thrive almost equally in all the zones, till the severity of the polar frosts chills them, or the hardened ground refuses subsistence. 'In this class, beneficent nature has placed all those whose services, in a domesticated state, are most useful to man; the horse, the ox, the sheep, the hog, the goat, the dog, and the cat. Others may be added, in the wide diffusion of which nature cannot be considered as having been so bounteous; among these are the fox, the hare, the rabbit, the stag, the rat, and the mouse. These common features, however, leave room for others, in which the different climates are widely distinguished from each other.'

'In the torrid zone, it has been justly observed, we find the same rank luxuriance of animal as of vegetable life. The inundated meadows, and the banks of rivers, are covered with the most overgrown and gigantic forms. The mighty elephant here dwells in the depths of the ancient forests, while the rhinoceros, and the hippopotamus, roll their enormous bulks along the banks of the streams. Other wild animals, not marked by so huge a size, distinguish themselves by power and fierceness. The lion and the tiger extend little beyond the torrid zone. The same may be said of the leopard, the panther, the ounce, and the hyæna. This zone produces also animals of striking beauty, and of a gentle and harmless disposition; such are the antelope, the zebra, and the cameleopard. It is still more advantageously characterised by an eminently useful species, that of the camel and dromedary, without whose services vast tracts of land in this zone would be wholly uninhabitable; and to which may be added, in the New World, the lama and the vicuna.'

The wild beasts of temperate climes are but of two kinds, the wolf and wild boar; while here are reared in their highest perfection the horse and all the domestic tribes. In the higher latitudes, the ox, sheep, &c., are stunted in their growth, and gradually disappear, and give place to the elk, the sable, the ermine, and other well furred animals. The most valuable animal in these climes, perhaps, is the rein-deer, devoted to most of the occupations of the horse and ox of the temperate zone.

The dog has been observed to be the faithful companion of man in all climates; but as he approaches the equator, on the one hand, he loses his noble voice and bark; while on the other, in Kamtschatka, or even when removed from a temperate to a frozen clime, he assumes a new and thicker covering. Some of the different species of fox are said also to be found almost every where.

5. *Of the vegetable productions of the earth.*—The geography of plants has been ably illustrated by modern writers, among whom baron Humboldt is, as in many other branches of science, most conspicuous. He considers the species of plants at present known, to amount to 44,000. Of these 6000 are cryptogamous. The remaining 38,000, phanerogamous plants, are distributed in the following manner: viz.

In Europe	7,000
— the temperate regions of Asia .	1,500
— Asia within the tropics, and islands .	4,500
— Africa	3,000
— both the temperate regions of America	4,000
— America between the tropics .	13,000
— New Holland and the islands of the Pacific	5,000

In the Prolegomena to his Nova Genera et Species Plantarum, M. Humboldt states that the proportion of plants which grow in latitudes 0°, 45°, 68°, are as the numbers 12, 4, 1. The mean annual temperature in these regions is 81½°, 55½°, 32½°; the mean summer temperature 82½°, 70°, 53½°. Within the tropics, the monocotyledinous plants are to the dicotyledinous, as one to six. Between the latitudes 36° and 52°, as one to four; and at the polar circle as one to two. In Germany the monocotyledinous plants are to the whole phanerogamous plants as 1 to 4½; in France as 1 to 4⅔ths. The same proportion seems to hold good in North America.

Our author, in the spring of 1816, read to the French Institute, an important paper on the Distribution of Vegetable Forms; on which we shall now mainly rely. 'The vegetables,' he remarks, 'which cover the surface of the globe present, when studied by natural classes, or families, striking differences in the distribution of their forms. It is to the laws of this distribution that I have recently turned my attention. On limiting them to the countries where the number of the species is exactly known, and dividing this number by that of the glumaceæ, the leguminous plants, the labiated, and the compound, we find numerical relations, which form very regular series. We see that certain forms become more common from the equator towards the poles, like the ferns, the glumaceæ, the ericineæ, and the rhododendrons. Other forms, on the contrary, increase from the poles to the equator, and may be considered in our hemisphere as southern forms: such are the rubiaceæ, the malvaceæ, the euphorbia, the leguminous and the composite plants. Finally, others attain the maximum in the temperate zone, and diminish towards the equator and the poles. Such are the labiated plants, the amentaceæ, the cruciferæ, and the umbelliferæ.' In the planes of the torrid zone, the cruciferæ and umbelliferæ almost entirely disappear.

In considering the manner in which numerous families of plants are distributed over the equatorial, temperate, and frigid zones, this writer further observes, that the vegetable forms present constant relations under the same isothermal lines. The grasses form in England a twelfth, in France a thirteenth, in North America a tenth of all the phanerogamous plants. The glumaceæ form in Germany one-seventh; in France one-eighth; in North America one-eighth; in New Holland, according to the researches of Brown, also one-eighth of the known phanerogamous plants. The composite plants rather increase in the northern parts of the transatlantic continent; for, according to the new Flora of Pursch, there is between the parallels of Georgia and Boston one-sixth; in France one-seventh, and in Germany one-eighth, of the total number of species which are endowed with a visible fructification. In the whole temperate zone, the composite plants and the glumaceæ together constitute nearly one-fourth of the phanerogamous class; the glumaceæ, the compositæ, the cruciferæ, and the leguminosæ together, nearly one-third. The last two classes, therefore, form the difference between one-third and one-fourth, which is one-twelfth of the whole flowering class. 'It results from these researches, that the forms of organised being have a mutual dependance upon each other, and that the unity of nature is such that the forms are limited, according to constant laws of determination. When, upon any point of the globe, we know the number of species presented by one of the great families of the glumaceæ, the compositæ, the cruciferous, or the leguminous plants, both the whole number of phanerogamous plants, and the number of species that compose the other vegetable families, may be estimated with considerable accuracy. Thus, by knowing the number of cyperaceæ, or composite plants, under the temperate zone, we may approximate to that of the graminous or leguminous plants in the same regions. The differences between the relations exhibited in the central parts of Europe, and the same latitude in North America, are accounted for by the different temperatures of these regions. The Flora of North America is a mixture of several Floras. The southern parts give it an abundance of malvaceæ and composite plants; the northern regions, being colder than the same latitudes of Europe, furnish to this Flora numerous rhododendrons, amentaceæ, and coniferæ. The caryophylleæ, the umbelliferæ, and the cruciferæ are in general more scarce in North America, than in the temperate zones of the old continent.

These constant relations observed on the surface of the globe, in the plains from the equator to the poles, are again traced in the midst of perpetual snows on the summits of the mountains. On the Cordilleras of the torrid zone the northern forms, in general, become more frequent. Hence it is that the ericineæ, the rhododendrons, and the graminous plants, prevail at Quito, and on the summits of the Andes. On the contrary, the labiatæ, the rubiaceæ, malvaceæ, and the euphorbiaceæ, become as rare as in Lapland. This analogy, however, is not supported in the ferns, and the composite plants. The latter abound on the Andes, but the former gradually disappear, above the height of 1800 fathoms. Thus the climate of the Andes resembles that of the north of Europe, only with respect to the mean annual temperature. The heat of the different seasons is very different, and exercises great influence on the phenomena of the vegetable kingdom. In general the forms which prevail among the Alpine plants are, according to my researches, under the torrid zone, the gramineæ, the composite, and the caryophylleæ; under the temperate zone, the compositæ, the caryophylleæ, and the cruciferæ; and under the frozen zone, the caryophylleæ, the ericineæ, and the ranunculaceæ.'

M. Humboldt delineates the distribution of plants at different altitudes in the torrid, temperate, and frigid zones, according to our plate. The names of the plants are placed at the heights at which they cease respectively to grow. The numbers mark the annual temperature, according to the centigrade scale: those between brackets indicate the temperature of August. The fathom is six French feet—6·39453 English feet.

Upon the question whether there are plants common to the new and old world; he concludes, that many of the mosses and lichens are to be found both in the equinoctial regions of America and in Europe. But the case is not the same with the vascular agamæ as with the agamæ of the cellular texture. The ferns and the lycopodiaceæ do not follow the same law as the mosses and the lichens. The former, in particular exhibit very few species universally to be found; and the examples cited are frequently doubtful. In reference to phanerogamous plants, with a few exceptions, the law of Buffon seems to be correct as to the species furnished with two cotyledons. It is not true that the ridges of the Cordilleras of Peru, where the climate is analogous to that of France, or Sweden, produce similar plants. The oaks, the pines, the yews, the ranunculi, the rose trees, the draba of the Peruvian and Mexican Andes, have nearly the physiognomy of the species of the same genera of North America, Siberia, or Europe. But all these Alpine plants of the Cordilleras, without excepting one among 3000 or 4000 that have been examined, differ specifically from the analogous species of the temperate zone of the old continent. In general, in that part of America situated between the tropics, the monocotyledinous plants alone, and the cyperaceæ and the gramineæ, almost exclusively, are common to the two worlds. These two families form an exception to the general law. M. Humboldt has given in his Prolegomena a catalogue of the plants common to the shores of the Orinoco, Germany, and the East Indies; the number of which does not exceed twenty-four species.

The gigantic growth of timber in the new continent has already been noticed by us. See AMERICA, NORTH. There are said to be 137 species in North America, whose trunks exceed the height of thirty feet, while in Europe scarcely forty-five species reach that height: but no firs are to be found in the mountains of South America, between the tropics. In temperate zones the same species of plants frequently grow toge-

ther in clusters; but in the torrid zone the woods are formed of a much greater variety of trees. 'The vegetable forms near the equator,' says baron Humboldt, 'are in general more majestic, more imposing; and the varnish of the leaves is more brilliant. The largest trees are perpetually adorned with flowers larger, more beautiful, and more odoriferous, than herbaceous plants in the temperate zone.'

PART III.

OF TECHNICAL OR ARTIFICIAL GEOGRAPHY.

Our preceding divisions have placed all the great natural features of this science before the reader. Geography, technically considered, teaches the doctrine of the figure, magnitude, and motions of the earth; of the various lines, parallels, climates, zones, &c., with which those who have systematised the science have supposed its surface to be diversified; the nature of latitude and longitude, and different positions of the sphere, &c.

Sect. I.—Of the Figure and Magnitude of the Earth.

The earth is a planet moving round the sun in an orbit nearly circular, and completing its revolution in the course of a year; at the same time it revolves continually upon its own axis, which is inclined to the plane of its orbit at an angle of sixty-six degrees and a half; the time of a revolution being twenty-three hours and fifty-six minutes. The revolution of the earth round the sun is called its *annual motion*, and the rotation it performs on its own axis is called its *diurnal motion*.

While the earth revolves round the sun in the course of its annual motion, its axis, round which the diurnal motion is constantly performed, moves always parallel to itself. It is by the parallelism of the axis, and the annual motion of the earth, that the changes of the seasons are produced, while by the diurnal motion all places on the earth's surface are alternately turned towards the sun, and by these means the changes of day and night follow.

When the earth was once known to be spherical, the curiosity of man would naturally lead him to endeavour to measure its dimensions; and we accordingly learn from history that such attempts were made. But the first accurate admeasurement that was made of the earth, of which we have any certain knowledge, was that executed by M. Picard, in France, towards the end of the seventeenth century, and which has been since several times verified.

It is not difficult to understand in what way the earth may be measured. The direction of gravity is always perpendicular to the earth's surface; hence it follows that the zenith of any place, or point of the heavens directly over our head, and also the horizon, which is a plane touching the earth's surface at that place, will be continually changing according as we change our position on the earth's surface. It follows accordingly, that, as we travel from south to north, the pole of the heavens (or that point in the heavens, in which the earth's axis when produced meets the sphere of the fixed stars) will be more and more elevated above the horizon; the meridian altitude also of the stars in the northern regions of the heavens will appear to increase; while that of the stars in the southern quarter will be diminished. By the elevation or depression of the stars, we shall know the angle formed at the point of concourse of perpendiculars drawn to the earth's surface at each extremity of the terrestrial arc; for this angle is equal to the difference of the meridian altitude of the same star as seen from the extremities of the arc, diminished by the angle which the arc itself subtends as seen from the star; which last angle is altogether insensible. The number of degrees in the arc being found, it is only necessary to determine its length in some known measure, as a fathom, &c.; but, as it would be a work of great labor to apply a measure to an arc of great extent, it will be sufficient if its extremities be connected by a series of triangles to those of a base line of 3000 or 4000 feet in length; and, considering the accuracy with which the angles of these triangles can be observed, the length of the arc may be found with great precision. It is in this way that degrees of the meridian have been repeatedly measured. In France, for example, about 1793, an arc was measured extending from Dunkirk to Barcelona (for the purpose of setting a universal standard of weights and measures); and the degree whose middle is situated in lat 45° was by this means found to be 57,029 toises.

Although the spherical figure is the most simple, and it is natural for man to suppose objects to be of that form which he most readily conceives, yet the simplicity of nature is not always measured by that of our conceptions. Infinitely varied in her effects, Nature is only simple in her causes; and her economy consists in producing a great number of phenomena, often the most complicated, by means of a few general laws. The figure of the earth is a result of these laws, which, modified by a great variety of circumstances, may cause it to deviate sensibly from a spherical figure; and certain small variations repeatedly observed in the length of degrees of the meridian, sufficiently indicate that such a deviation exists.

The Academy of Sciences in France, in which this question has been warmly agitated, concluded with reason, that the difference of magnitude in the degrees of the meridian, if real, would be most sensibly perceived by the comparison of degrees measured at the equator and towards the poles. Accordingly a company of academicians was sent to the equator, where, having measured a degree of the meridian, they found it to contain 56,753 toises; which was shorter by 274 toises than a degree in lat. 45° north. Other academicians were sent to the north, and having measured a degree of the meridian in Lapland, about the latitude of 66° 20′, they found it to be 57,458 toises, which was greater than the degree at the equator by 685 toises; and by these measurements it was completely proved, that the earth was not exactly spherical; and other measurements of degrees made since that period have all tended to show, that the degrees of the meridian gradually increase from the equator to the poles.

The ellipse is the next curve in point of simplicity to the circle, and the earth has been considered as a spheroid formed by the revolution of an ellipse about its lesser axis: its oblateness or compression in the direction of its poles, is a necessary consequence of the observed increase of the degrees of the meridian from the equator to the poles. For the radii of these degrees being in the direction of gravity, they are by the law of the equilibrium of fluids perpendicular to the surface of the ocean, with which the earth is in a great measure covered. They do not therefore, as in the sphere, tend to the centre of the spheroid; neither are they in the same direction, nor of the same magnitude, as the radii drawn from the centre to its surface; which cut it obliquely every where, except at the equator and poles. The point at which two adjoining perpendiculars, situated under the same meridian, meet each other, is the centre of the small terrestrial arc which they comprehend between them. If this arc were a straight line, these perpendiculars would be parallel; or they could only be considered as meeting at an infinite distance; but, in proportion as this arc became curved, they would meet at a distance so much the less, as the curvature of the arc was the greater. Hence it follows, that seeing the extremity of the lesser axis is the point where the curvature of the ellipse is the least, the radius of a degree at the pole, and consequently that degree itself, must be the greatest of any degree on the earth's surface. On the contrary, at the equator, or at the extremity of the greater axis, the curvature is the least, and therefore the degree in the direction of the meridian is there the smallest. And, in going from the equator to the pole, the degrees increase in such a manner, that, if the ellipse be not very eccentric, the increase is nearly proportional to the square of the sine of the latitude.

If the earth were exactly an oblate spheroid, its magnitude, as well as the proportion of its axes, might be determined by the mensuration of two degrees in the direction of the meridian. It should also follow, that by a comparison of all the degrees hitherto measured, taken two and two, we should obtain the same proportion between the axes. This, however, has not been the case. The results have indeed shown, that the earth is flattened at the poles; but they have left an uncertainty as to the quantity of the compression, extending from between the 170th to the 330th part of the radius of the equator. Between these two quantities, the former of which is nearly double of the latter, most of the results are placed; but in such a manner, that those most entitled to credit are much nearer to the least extreme than to the greater.

In consequence of this disagreement in the result of comparisons of degrees of the meridian, measured in different latitudes, it has been concluded by mathematicians, that the figure of the earth is not that of a spheroid; nor does it even appear, that the parts of it on each side of the equator are exactly similar.

It will, however, be sufficient for the purposes of geography, to suppose the earth a spheroid. Upon this hypothesis, La Place, by a comparison of the arc of the meridian measured at the equator, and another measured between Dunkirk and Mountjoy, has found, that the polar diameter is less than the equatorial by 1-334th part of the latter; and that a fourth part of the elliptic meridian is 5,130,740 toises; the toise being that used in measuring the earth in Peru, and reduced to a temperature of sixteen degrees and a quarter of a mercurial thermometer, divided into 100 degrees from the freezing point to that of water, boiling under a pressure equivalent to a column of mercury seventy-six centimetres in height, or about thirty inches English measure. This determination also agrees nearly with the results from the combination of a great number of experiments, made at different places of the earth, upon the pendulum.

Because the measure of a degree at the equator has been assumed, in the preceding calculation, at 56,753 toises, it follows that the equatorial diameter is 3,271,267, and the polar diameter 3,261,471 toises; the difference between them being 9796 toises. From these data, and the rules of mensuration, it will be easy to find the surface, solidity, &c., of the earth, also the number of miles in a degree, &c.

The following table of the dimensions of the earth is by Dr. Hutton:—

The diameter . .	79,579¾ miles.
The circumference	25,000 miles.
A degree contains .	69½ English miles.
The superficies . .	198,944,206 square miles.
The solidity . . .	263,930,000,000 cub. miles.

Sect. 2.—Of the Circles supposed to be described on the Earth's surface.

In geography the circles which the sun apparently describes in the heavens, are supposed to be extended as far as the earth, and marked on its surface. In like manner we may imagine as many circles as we please to be described on the earth, and their planes to be extended to the celestial sphere, till they mark concentric ones on the heavens. The most remarkable of those supposed by geographers to be described in this manner are the following:—

1. The *axis* of the earth, or that imaginary line passing through the earth's centre, round which it continually revolves from west to east.

2. The *poles*, or points at which the axis meets the earth's surface. One of these is called the north-pole, and the other the south. These correspond to the poles of the heavens, or the points where the earth's axis, when produced, meets the starry sphere.

3. The *equator*, a great circle on the earth's surface, equally distant from both poles, and corresponding to the equinoctial circle in the heavens. It divides the earth's surface into two equal portions, called the northern and southern hemispheres. The equator is also sometimes, called the *line* or *equinoctial line*.

The distance of any place, northward or southward, from the equator, is called its *latitude*, and is reckoned in degrees and minutes, &c. The distance between the poles and equator, which is a quadrant of a great circle passing through the poles, has by all geographers hitherto been supposed to be divided into ninety degrees; and each of these again subdivided into sixty minutes, &c. But some French astronomers, and in particular La Place, in his Exposition du Systeme

du Monde, as well as in his Traité de Mecanique Celeste, has adopted the decimal division of the meridian. They have supposed the distance between the equator and the poles to be divided into 100 degrees, and each degree to be subdivided into 100 minutes, each minute into 100 seconds, and so on.

All places lying on the north side of the equator are said to have north latitude; on the contrary, all places on the south side of the equator are said to have south latitude.

Parallels of latitude are lesser circles upon the earth's surface parallel to the equator. They may be considered as indefinite in number; all places that lie directly east or west from each other are said to lie in the same parallel of latitude.

The *tropics* are two lesser circles on the earth, parallel to the equator, and twenty three degrees and a half distant from it. That which lies on the north side of the equator is called the *tropic of Cancer*; and that which lies on the south side is called the *tropic of Capricorn*. These circles correspond to the circles of the same name, which limit the sun's north and south declination from the equinoctial in the heavens.

The *polar circles* are two lesser circles upon the earth's surface, parallel to the equator. They are as far distant from the poles, which they surround, as the tropics are from the equator. That which lies towards the north pole is called the *arctick circle*, and that which lies next to the south pole is called the *antarctick circle*. To these there are corresponding circles, bearing the same names, in the heavens.

Great circles passing through the poles of the earth, and therefore perpendicular to the equator, are called *meridians*. The meridian passing through any particular place lies in the plane of the celestial meridian of that place. It also divides the surface of the earth into two equal portions, called the eastern and western hemispheres, in respect of that place. The meridians may be considered as indefinite in number; and all places lying directly north and south from each other are upon the same meridian. Sometimes by the meridian of a place is understood the half of a great circle, passing through that place, and extending from the one pole to the other; and the other half of the circle is called the opposite meridian.

If we suppose twelve great circles, one of which is the meridian of a given place, to intersect each other at the poles of the earth, and divide the equator into twenty-four equal parts, these are the *hour* or *horary* circles of that place. These are by the poles divided into twenty-four semicircles, corresponding to the twenty-four hours of the day and night. The distance between each two of these semicircles is 15°, being the twenty-fourth part of 360.

The *longitude* of any place on the earth is an arc of the equator intercepted between the meridian passing through that place and some other meridian previously agreed upon which is called the first meridian. The longitude is reckoned eastward and westward from the first meridian, by which means all places lying in the hemisphere to the eastward of that place, through which the first meridian passes, will have east longitude; and all places lying in the hemisphere to the westward of that place will have west longitude.

Geographers at different periods, and in different countries, have fixed upon different places for the first meridian. The rule among the ancients was to make it pass through the place farthest to the west that was known. But the moderns, knowing that there is no such place on the earth as can be considered the most westerly, have laid aside that method of reckoning the longitude. Ptolemy assumed the meridian that passes through the farthest of the Canary Islands, as his first meridian. After him, as more countries were discovered in that quarter, the first meridian was removed farther off. The Arabian geographers fixed the first meridian upon the utmost shore of the western ocean. Then again it was fixed at the island of St. Nicholas, near Cape Verd; then at the isle of St. James; and by Mercator at the isle Del Corvo one of the Azores, because there the magnetic needle pointed due north at that time.

The Dutch fixed upon the Peak of Teneriffe as their first meridian, when it was considered the highest mountain on the globe; and the French, by order of Louis XIII., on the island of Ferro, one of the Canaries.

In Great Britain, we reckon the longitudes of places eastward and westward from the royal Observatory, Greenwich, and the United States of America adopt the same meridian. The differences of longitude between the last-mentioned meridians, all of which are occasionally referred to, or constantly used by geographers, is as follows (from Greenwich Observatory):—

Paris . . .	2°	20′	15″	E.
Peak of Teneriffe	16	39	45	W.
Isle of Ferro .	17	39	45	W.

The *horizon* of a place is either sensible or rational. The *sensible horizon* of any place is a circle of the sphere, the plane of which touches the spherical surface of the earth at that place.

The *rational horizon* is a great circle of the sphere, the plane of which passes through the centre of the earth, and is parallel to the plane of the sensible horizon. This horizon divides the celestial sphere into two equal portions or hemispheres; one of these is visible, but the other, by reason of the interposed body of the earth, is invisible.

By the sensible horizon of a place is also sometimes understood a circle, which determines the segment of the surface of the earth, which is visible to the eye; called also the *visible horizon*. It is evident that this circle will be most accurately defined at sea, and equally distant every where from the eye of an observer, but below the level of his eye. It will also be so much the more extensive, as the eye is raised above the earth's surface.

The *zenith* of a place is the point of the heavens directly over the head of an observer; and the *nadir* is the point in the oppposite hemisphere, directly under his feet; or the zenith and nadir are the poles of the horizon.

Great circles of the sphere passing through the zenith and nadir are called *vertical circles*, or *azimuths*. They are also sometimes called secondaries of the horizon; and in general any

great circle passing through the poles of another is called its secondary. That vertical circle, which has its plane perpendicular to the plane of the meridian, is called the *prime vertical*. The meridian and prime vertical, by their intersections with the horizon, divide it into four equal parts: the points of their intersection are called the *cardinal points*. The meridian cuts the horizon at right angles in the north and south points, and the prime vertical cuts it at right angles in the east and west points. Lesser circles of the sphere parallel to the horizon are called parallels of *altitude* or *almacantar*.

The *armillary sphere* was a machine formerly in use, which represented the principal circles above described, the poles of the earth, &c.; but since globes which contain all those circles have been more general, this machine is become exploded.

The degrees of longitude are not equal like those of latitude, but diminish in proportion as the meridians incline, or their distance contracts as they approach the pole. Thus in 60° of latitude, a degree of longitude is but half the length of a degree of the equator. We therefore here add

A Table, showing the Number of Miles contained in a Degree of Longitude in each Parallel of Latitude from the Equator.

Degrees of Latitude.	Miles.	100th parts of a mile.	Degrees of Latitude.	Miles.	100th parts of a mile.	Degrees of Latitude.	Miles.	100th parts of a mile.
1	59	96	31	51	43	61	29	04
2	59	94	32	50	88	62	28	17
3	59	92	33	50	32	63	27	24
4	59	86	34	49	74	64	26	30
5	59	77	35	49	15	65	25	36
6	59	67	36	48	54	66	24	41
7	59	56	37	47	92	67	23	45
8	59	40	38	47	28	68	22	48
9	59	20	39	46	62	69	21	51
10	59	08	40	46	00	70	20	52
11	58	89	41	45	28	71	19	54
12	58	68	42	44	95	72	18	55
13	58	46	43	43	88	73	17	54
14	58	22	44	43	16	74	16	53
15	58	00	45	42	43	75	15	52
16	57	60	46	41	68	76	14	51
17	57	30	47	41	00	77	13	50
18	57	04	48	40	15	78	12	48
19	56	73	49	39	36	79	11	45
20	56	38	50	38	57	80	10	42
21	56	00	51	37	73	81	09	38
22	55	63	52	37	00	82	08	35
23	55	23	53	36	18	83	07	32
24	54	81	54	35	26	84	06	28
25	54	38	55	34	41	85	05	23
26	54	00	56	33	55	86	04	18
27	53	44	57	32	67	87	03	14
28	53	00	58	31	70	88	02	09
29	52	48	59	30	90	89	01	05
30	51	96	60	30	00	90	00	00

For the methods of calculating the latitude and longitude, see LATITUDE and LONGITUDE.

SECT. III. OF THE DIFFERENT POSITIONS OF THE SPHERE, THE ZONES, CLIMATES, &c.

If we suppose an inhabitant of the earth living at either of the poles, he will there have one of the celestial poles always in his zenith and the other in his nadir, the equator coinciding with the horizon. Hence all the celestial parallels are also parallel to the horizon; and hence a person, or people, are said to live in a *parallel sphere*, or to have a parallel horizon.

Those who live under the equator have both poles in the horizon, all the celestial parallels cutting the horizon at right angles; whence they are said to live in a *right sphere*, or to have a *right horizon*.

Those who live between either of the poles and the equator are said to live in an oblique sphere, or to have an oblique horizon; because the celestial equator cuts their horizon obliquely, and all the parallels in the celestial sphere have their planes oblique to that of the horizon. In this sphere some of the parallels intersect the horizon at oblique angles, some are entirely above it, and some entirely below it; all of them, however, so situated, that they would obliquely intersect the plane of the horizon extended.

The largest parallel which appears entire above the horizon of any place, in north latitude, is called by ancient astronomers the arctic circle of that place. Within this circle, i. e. between it and the arctic pole, are comprehended all the stars which never set in that place, but are carried perpetually round the horizon, in circles parallel to the equator.

The largest parallel which is hid entirely below the horizon of any place, in north latitude, was called the antarctic circle of that place by the ancients. This circle comprehends all the stars which never rise in that place, but are carried perpetually round below the horizon, in circles parallel to the equator.

In a parallel sphere, however, the equator may be considered as both arctic and antarctic circles; for, being coincident with the horizon, all the parallels on one side are entirely above it, and those on the other entirely below it. In an oblique sphere, the nearer any place is to either of the poles the larger are the arctic and antarctic circles, as being nearer to the celestial equator, which is a great circle. In a right sphere, the arctic and antarctic circles have no place, because no parallel appears either entirely above or below it.

By the ancients the arctic circle was called maximus semper apparentium, and circulus perpetuæ apparationis; the antarctic circle, on the other hand, being named maximus semper occultorum, and circulus perpetuæ occultationis.

By the arctic and antarctic circles, however, modern geographers in general understand two fixed circles, at the distance of 23° 30′ from the poles. These mark out the space all round the globe where the sun appears to touch the horizon at midnight in mid-summer, and to be entirely sunk below it in winter.

According to the different positions of the

globe, with regard to the sun, the celestial bodies exhibit different phenomena to the inhabitants. Thus, in a parallel sphere, they appear to move in circles round the horizon; in a right sphere they appear to rise and set as at present, but always in circles cutting the horizon at right angles; but, in an oblique sphere, the angle varies according to the degree of obliquity, and the position of the axis of the sphere with regard to the sun. The phenomena thence arising will be sufficiently understood from what is said under the article ASTRONOMY.

The space between the two tropics, called the torrid zone, extends 47° of latitude all round the globe; and throughout the whole of that space the sun is vertical to some of the inhabitants twice a year, but to those who live directly under the tropics only once. Throughout the whole torrid zone also there is little difference between the length of the days and nights. The ancient geographers found themselves considerably embarrassed in their attempts to fix the northern tropic; for though they took a very proper method, namely, to observe the most northerly place where objects had no shadow on a certain day, yet they found that on the same day no shadow was cast for a space of no less than 300 stadia. The reason of this was, the apparent diameter of the sun; which, being about half a degree, seemed to extend himself over as much of the surface of the earth, and to be vertical every where within that space.

The division of the earth into zones has arisen from the various appearances of the sun, and the effects of his light and heat upon different parts of it. These are five in number: 1. The *torrid* zone lying between the two tropics for a space of 47° of latitude. This is divided into two equal parts by the equator; and the inhabitants have the sun vertical to them twice a year, excepting only those who dwell under the tropics, to whom he is vertical only once. 2. The two *temperate* zones lie between the polar circles and the tropics, containing a space of 43° of latitude. And, 3, The two *frigid* zones lie between the polar circles and the poles. In these last the longest day is never below twenty-four hours; in the temperate zones it is never quite so much, and in the torrid zone it is never above fourteen. The zones are named from the degree of heat they were supposed to be subjected to. The torrid zone was supposed by the ancients to be uninhabitable by reason of its heat; but this is now found to be a mistake, and many parts of the temperate zones are more intolerable in this respect than the torrid zone itself. Towards the polar circles, also, these zones are intolerably cold during winter. Only a small part of the northern frigid zone, and none of the southern, is inhabited. Some geographers reckoned six zones, dividing the torrid zone into two by the equator.

From the difference in the length and positions of the shadows of terrestrial substances, ancient geographers have given different names to the inhabitants of certain places of the earth; the reason of which will be easily understood from the following considerations:—1. As the sun in his apparent annual revolution never removes farther from the equator than 23° 30′, none of those who live without that space, or beyond the tropics, can have that luminary vertical to them at any season of the year. 2. All who live between the tropics have the sun vertical twice a year, though not all at the same time. Thus, to those who live directly under the equator, he is directly vertical in March and September at the equinox. If a place is in 10° north latitude, the sun is vertical when he has 10° north declination; and so of every other place. 3. All who live between the tropics have the sun at noon sometimes north and sometimes south of them. Thus, they who live in a place situated in 20° north latitude, have the sun at noon to the northward when he has more than 20° north declination, and to the southward when he has less. 4. Such of the inhabitants of the earth as live without the tropics, if in the northern hemisphere, have the sun at noon to the south of them; but to the north, if in the southern hemisphere. 5. When the sun is in the zenith of any place, the shadow of a man or any upright object, falls directly upon the place where they stand, and consequently is invisible; whence the inhabitants of such places were called Ascii, or without shadows. Those who live between the tropics, and have the sun sometimes to the north and sometimes to the south of them, have of consequence their shadows projecting north at some seasons of the year and south at others; whence they were called Amphiscii, or having two kinds of shadows. They who live without the tropics have their noon shadows always the same way; and are therefore called Heteroscii, that is, having only one kind of shadow. If they are in north latitude the shadows are always turned towards the north, and, if in the southern hemisphere, towards the south. When a place is so far distant from the equator that the days are twenty-four hours long or longer, the inhabitants were called Periscii, because their shadows turn round them.

Names have likewise been given the inhabitants of different parts of the earth, from the parallels of latitude under which they live, and their situation with regard to one another. Thus, when two places are so near each other that the inhabitants have only one horizon, or at least that there is no perceptible difference between them, the inhabitants were called Synoeci, that is, near neighbours; the seasons, days, nights, &c., in both places being perfectly alike. Those who lived at distant places, but under the same parallel, were called Perioeci, that is, living in the same circle. Those who are on the same side of the equator have the seasons of the year at the same time; but, if on different sides, the summer season of the one is the winter of the other; as explained under ASTRONOMY. Some writers, however, by the name of Perœici, distinguish those who live under opposite points of the same parallel, where the noon of the one is the midnight of the other. When two places lie under parallels equally distant from the equator, but in opposite hemispheres, the inha-

Litants were called Antœci. These have a similar increase of days and nights, and similar seasons, but in opposite months. According to some, the Antœci were such as lived under the same geographical meridian, and had day and night at the same time. If two places are in parallels equally distant from the equator, and in opposite meridians, the inhabitants are called Antichthones with respect to one another, that is, living on opposite sides of the earth; or Antipodes, having their feet opposite to one another. When two persons are Antipodes, the zenith of the one is the nadir of the other. They have a like elevation of the pole, but it is of different poles: they have also days and nights alike, and similar seasons of the year; but they have opposite hours of the day and night, as well as seasons of the year. Thus, when it is mid-day with us, it is midnight with our Antipodes; when it is summer, with us, it is winter with them, &c.

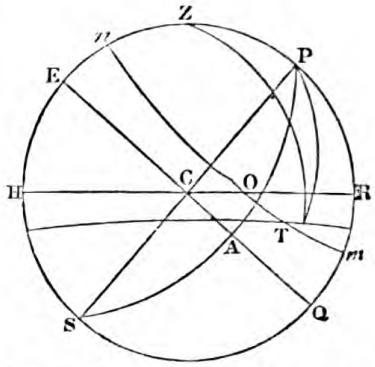
From observing the diversity in the length of the days and nights, the rising and setting of the sun, with the other phenomena already mentioned, ancient geographers divided the surface of the earth into certain districts which they called CLIMATES (see our article of that title); and instead of the method of describing the situation of places by their latitude and longitude, as we do now, they contented themselves with mentioning the climate in which they were situated. When more accuracy was required they mentioned also the beginning, middle, and ending of the climates.

This distinction, however, was vague and inaccurate: for the only method they had of determining the difference was by the length of the day; and a climate, according to them, was such a space as had the day in its most northerly part half an hour longer than in the most southerly. For the beginning of their first climate they took that paral'el under which the day is twelve hours and three-quarters long: those parts of the world which lie nearer the equator not being supposed to be in any climate, either because in a loose sense they may be considered as in a right sphere, or because they were unknown, or thought to be uninhabitable by reason of the heat. The principal ancient climates are mentioned in the article above referred to.

A parallel was said to pass through the middle of a climate when the day under that parallel is a quarter of an hour longer than that which passes through the most southerly part. Hence it does not divide the space into two equal parts, but that part next the equator will always be the larger of the two; because, the farther we recede from that circle, the less increase of latitude will be sufficient to lengthen the day a quarter of an hour. Thus, in every climate there are three parallels; one marking the beginning, the second the middle, and the third the ending of the climate; the ending of one being always the beginning of another. Some of the ancients divided the earth by these parallels; others by a parallel did not mean a mere line, but a space of some breadth: and hence the parallel may be understood as the same with half a climate.

SECT. IV.—THE METHOD OF FINDING THE LENGTH OF THE DAY, AND THE BEGINNING AND ENDING OF THE TWILIGHT.

This has been represented mathematically, thus:—



Let P Z E S of the diagram represent the celestial meridian of any place, P and S being the poles of the sphere; let E Q be the equator and H O R the horizon, stereographically projected upon the plane of the meridian; let P C S represent the six o'clock hour circle, and *m* O *n* the parallel of declination described by the sun or a star at any given day of the year; the point O being that in which it cuts the horizon; then *n* O represents half the arch described by the sun when above the horizon, and O *m* the half of the arch described when below the horizon. Let P O S represent an hour circle passing through the sun or star when in the horizon, and meeting the equator E Q in A; the arch E A of the equator intercepted between the meridian and hour circle, being found, and converted into time (allowing fifteen degrees to an hour), will evidently give half the time that the sun or star remains above the horizon, as the arch A Q will give half the time it remains below the horizon. As the arch E C contains ninety degrees, and corresponds to six hours, it is only necessary to find the arch C A, which is called the sun's ascensional difference, it being the difference between his right ascension and his oblique ascension; and, having converted it into time, to add it to or subtract it from six hours, according as the latitude of the place and sun's declination are of the same or of contrary names, that is both north or both south, or the one north and the other south, and the sum or difference shall be half the length of the day as required.

In the spherical triangle C A O, right angled at A, we have A O the complement of the sun's declination, to be found from astronomical tables, and the angle A C O, the complement of the latitude of the place, in order to find A C the right ascension. Hence, from the principles of spherics, we have the following proportion:—

As radius to the tangent of the latitude, so is the tangent of the sun's declination to the sine of the sun's ascensional difference required.

When the sun is in the same hemisphere with any place, and his declination is equal to the complement of its latitude, which can only happen to places in the polar circles, then *m n*, the

parallel of declination, will not cut the horizon, and consequently the sun will not set in those places during the time his declination exceeds the co-latitude; but when the sun and place are in opposite hemispheres, then he will never rise at that place so long as his declination exceeds the co-latitude; and hence it is easy to see how to find the time when the sun begins to shine constantly upon any given place within the polar circle; and also the time when that place begins to be wholly in the dark for a considerable time together.

It has been observed, in our article ASTRONOMY, that the twilight commences in the morning and ends in the evening when the sun is eighteen degrees below the horizon. The time of its commencement, or ending, may be found by spherical trigonometry as follows:—Let Z be the zenith, P the pole of the sphere, and T the place of the sun, eighteen degrees below the horizon H R. In the spherical triangle, P Z T, we have P Z the distance of the pole from the zenith, which is equal to the co-latitude of the place, and P T the complement of the sun's declination; also Z T the distance of the sun from the zenith, which, in this case, is always 90°+18° or 108°. From these we are to find the hour angle Z P T, which may be had by the following proportion. Let V=½ the perimeter of the triangle. Then, as sine Z P × sine P T to the square of the radius, so is sine (V—Z P) × sine (V—P T) to the square of the sine of half Z P T. The angle Z P T being turned into time will give the time from noon of the beginning or ending of the twilight.

SECT. V.—OF THE CONSTRUCTION AND USE OF MAPS.

A map is a representation of the earth, or a part of it. A map of the world is a delineation in perspective of the globe, as it would appear to an eye placed in a particular point. The circles bounding such a map represent the brass meridian; and the curve lines running across, at every ten degrees, show the latitude north or south of the equator. The top and bottom are the north and south poles; and the curve lines uniting them are other meridians passing through every tenth degree of the equator, and showing the longitude east or west from the first meridian. The straight line intersecting these meridians, and passing through the centre, is the equator or equinoctial; at proper distances from which, on each side, are curve lines representing the tropics and polar circles.

Maps and charts, especially the latter, are sometimes drawn on what is called Mercator's projection, so called from the inventor, Gerard Mercator, an eminent geographer in Flanders, who, about the middle of the sixteenth century, published a map of the world on this construction. In these maps the meridians and parallels are straight, and the former equidistant from each other. The degrees of longitude in every parallel are the same; while the degrees of latitude are all unequal, being lengthened towards the poles. Charts drawn on this construction are particularly of use to navigators, because the rhumbs, which point out the bearings of places, and consequently the courses to be steered to art rive at them, are all straight lines. See our char- of the world on this projection.

In maps of particular countries the top is generally considered as the north, the bottom as the south; and the east is consequently on the right hand, and the west on the left. Where this rule is not followed a fleur-de-lis is usually placed on some part of the map, pointing towards the north, by which the other points may be easily known. From the top to the bottom of the map are drawn meridians, or lines of longitude; and from side to side parallels of latitude. The outermost of the meridians and parallels are marked with degrees of latitude and longitude, by means of which, and the scale of miles commonly placed in the corner of the map, the situation, distance, &c., of places may be found. Thus, to find the distance of two places, suppose London and Paris, by the map, we have only to measure the space between them with the compasses, and to apply this distance to the scale of miles, which shows that London is 210 miles distant from Paris. If the places lie directly north or south, east or west, from each other, we have only to observe the degrees on the meridians and parallels; and by turning these into miles we obtain the distance without measuring. Rivers are described in maps by black lines, and are wider towards the mouth than towards the head or spring. Mountains are sketched on maps as on a picture. Forests and woods are represented by a kind of shrub; bogs and morasses by shades; sands and shallows are described by small dots; and roads usually by double lines. Near harbours the depth of the water is expressed by figures denoting fathoms.

Having discovered by maps, or any other way, the true situation of the different places of the earth with regard to each other, we may easily know many other particulars relative to them; as, their distance from us, the hour of the day, the season of the year, &c., at any particular place. As each of these problems, however, would require a particular and sometimes troublesome calculation, machines have been invented, by which all the calculations may be saved, and every problem in geography may be solved mechanically, and in the most easy and expeditious manner. These machines are the celestial and terrestrial globes, for the use of which see GLOBE.

For the mechanical details of the construction of maps, see MAPPING.

GEOLOGY.

GEOLOGY; from Gr. γη, the earth, and λογος a discourse; is a modern science which undertakes to explain the structure of the earth. Some of its more decided votaries have dignified it with the title of 'geognosy,' or the *knowledge* of the earth; but, when we consider how small a portion of even the crust of the earth has as yet been examined and arranged by it, we prefer the less assuming as the more suitable appellation.

Those speculations and fictions which, under

the title of theories of the earth, amused the public in the infancy, or rather before the birth of this science, while they excited surprise by their paradoxical boldness or ingenious contrivance, neither originated in observation, nor applied to existing appearances; they were formed in the closet by men who had never probably ascended a mountain or explored a mine; who had never examined Nature in her operations, and of course were not fitted to become her interpreters. The enumeration and structure of the simple minerals, the arrangement of fossil bodies into mountain masses, or into the more level parts of the earth's crust, the order in which the individual strata are placed with regard to each other, and the relation they bear to those parts that are not stratified, had not with them become an object of attention or enquiry. The theories or dreams which they formed must therefore be viewed merely in the light of philosophical romances, or ingenious works of fancy, and would apply to any other planet as well as to ours. Nineteen of them may be found in the introduction to Mr. Accum's Chemistry. They bear the same relation to the state and appearances of the earth as the Oceana or the Utopia bear to actually existing governments; and can no more account for its phenomena than the fictions of enchantment can explain the events of history.

This general character, which will apply to all the attempts at forming geological systems antecedent to the last thirty or forty years, will save us the trouble of enumerating those productions, or of pointing out their errors and defects. Within this time the science of mineralogy has made very rapid progress, and geological enquiry and classification have kept pace with it. The comprehensive mind of Werner, upon an extensive acquaintance with the mineral kingdom, formed a new nomenclature and arrangement, by which simple fossil bodies may be discriminated and described. Carrying the same inquisitive and generalising talents to the examination of the crust of the earth, he discovered and pointed out the structure of its compound masses, the relations of its different strata or beds to each other, the method in which they succeed each other, in ascending from the lowest level to the pinnacle of the highest mountain-group, and those great arrangements of them that prevail, with few interruptions, round the globe. He has given names to those different formations, and detailed the characters by which they may be distinguished. The apparent irregularities, disorder, and contortions, which interrupt the more general formations, have not escaped his notice nor transcended his powers of arrangement. These, with the veins occurring in the strata, the metallic and other deposits that fill them, have all been remarked, named, and classified. Ascending from the consideration of present appearances to their cause, and inferring from changes that are now in progress the past history and revolutions of our globe, his disciples have formed a system of geology, with regard to the earth's formation, more reconcileable with observed phenomena, explaining a greater body of facts, and liable to fewer objections, than any previous or contemporary theory. This theory has been often called the Neptunian, from its being founded on the supposed agency of water in the original modification of the earth: there is but another modern theory called the Plutonian, from its supposing the agency of fire in a similar manner, that is at all worth the student's notice.

Since the system of Werner has been adopted, and his disciples scattered all over Europe, ardor has been excited, and the number of observers multiplied. Adventurous travellers, carrying with them a precise nomenclature and distinctive marks of discrimination, have visited, and are visiting, the most distant regions, observing the surface of the earth in situations the most remote from each other, and diffusing the results of their examination over the scientific world. We need only mention as instances such names as those of baron Humboldt, and M. Von Buch. More minute surveys are daily making in the different parts of civilised Europe; facts are thus perpetually accumulating, and collections increasing. In our country a taste for mineralogy and geology has been created, and rapidly diffused, by the labors and fame of Mr. Jameson, one of Werner's most eminent disciples; by those of professor Buckland of Oxford; by the institution and labors of the Geological Society; and by the attractive nature of the science itself, and its important contributions to the arts.

In giving a brief notice of the present state of geology, the following natural division of the science will probably be found both comprehensive and precise.

The first will contain a general description of the surface of the earth, and an explanation of the terms to be employed in discussions concerning it.

The second will contain a description of its internal structure, and a similar detail of its nomenclature.

The third will embrace a geological survey of our globe, with an account of the particular structure, relative position, and geographical distribution of its various mineral masses.

The fourth division will employ the knowledge thus collected, in support of some rational theory, with regard to its formation, or in overturning the fabric of chimerical hypotheses.

In the present stage of the science, this last part will contain a short view of the Huttonian and Wernerian theories; the doctrines of which respectively compose the creeds or articles of faith in geology, of the two sects into which the mineralogists of this country are divided.

I. We shall first then begin with a description of the earth's surface, and shall avail ourselves of the phraseology of Werner, employed by Mr. Jameson in his System of Mineralogy, as being more precise, and more generally received, than any other that has hitherto been invented.

The dry land of our globe may be, for the sake of precision and convenience of description, divided into four classes of inequalities, comprising, 1. The high land and low land; 2. Alpine land and plain; 3. Mountain range and valley; 4. Single mountain and ravine. From the soundings taken in different seas, and in different parts of the ocean, the portion of the globe covered with water would appear to be similar in its surface to that part of it which we inhabit, and to possess eminences and depressions as strongly

marked, if not so easily examined. Indeed, without any experiment to ascertain this fact, it might have been pretty certainly inferred from analogy, when we consider that the ocean covers more than a half of the crust of the earth, and that the various islands and continents that compose the exposed part of it, are merely to be viewed as elevations of greater or less extent, that rise out of its waters, and continuations of those below them. The bottom of the ocean may therefore be as much diversified by mountains and valleys as the surface of our continents. The most general division of the dry land is into high and low land. The low land is composed principally of plains, though it admits sometimes of mountainous and hilly ground of no considerable elevation. It does not rise much above the level of the sea, and is made up principally of alluvial deposits or of secondary formations. The high land is composed of alpine, mountainous, and hilly ground, each rising above the other, and forming a suite of elevations from the low land to the most prominent points of a continent. The general distribution of the high lands we have stated in our preceding article on GEOGRAPHY.

The characteristic feature of the mountain groups is the superior elevation of its central chain, and the gradual sinking of the mountain masses towards its extremities. Mountainous land is distinguished from Alpine by its less height, and by its want of that aggregation of eminences that constitute the mountain-group; and hilly land, although it sometimes possesses this appearance, is distinguished from the two former by its less elevation, and by the rounded wavy aspect of its inequalities. From the central chain of the mountain-group all the other parts decline on both sides. It is never intersected totally in its course, and is generally commensurate in length with the extent of the group. It is divided from those subordinate chains that are arranged with it, by valleys frequently traversed by rivers. The mountain-chain is subdivided into individual mountains, which are separated from each other by small valleys or ravines, neither wide, deep, nor long, and seldom permeated by streams and rivers.

Most mountains have a foot, an acclivity, and a summit; meaning by these terms, what is generally understood by them, the lowest portion, the intervening space, and the highest point. Sometimes the acclivity is perpendicular, and then there can be no foot; sometimes inclined at an angle, that will not permit the growth of trees; and sometimes possessing such a gentle inclination as allows it to have soft mould, and to become fertile in vegetables. The character of the summit is very various, according to the kind of rock that predominates, and other causes. Granite and limestone often present angular, precipitous, and sharp-pointed summits, as may be seen in the Alps, the Appennines, the rock of Gibraltar, and other mountains. Gneiss forms flat or round-backed summits; basalt, and some other, obtuse conical ones.

Mountain-groups vary very much in their length, their breadth, the shapes of their individual mountains, and the height of their summits. It is almost needless to mention instances of these varieties, or to give terms by which they may be discriminated, as they cannot fail to occur to every one in the least acquainted with the elements of geography.

The direction and magnitude of rivers frequently indicate the direction in the inequalities of the regions through which they flow, and in their course sometimes present us with particular appearances, which have not yet been enumerated in any of the foregoing divisions. We allude to those basins, or concavities, which they seem once to have formed or occupied, and through which they now flow. These concavities are of various shapes, sometimes inclining to circular or oval, and other times more elongated. The lips of the basin seem in general to rise pretty high from its bottom, and to be composed of rocks or earths in a different state of aggregation. In the basin itself the surface consists chiefly of gravel, sand, clay, loam, or chalk, that appear to be late mechanical deposits from water, or rolled and rounded by its action. The sides or lips of it are either parts of mountains, or similar to the ground without it in structure. Examples of these concavities will occur to almost every one. They are met with in the course of the Rhine, the Rhone, the Elbe, and the Danube. The Vallais, and the concavity in which the lake of Geneva is situated, may serve to show this appearance in the line of the Rhone; the lake of Constance in that of the Rhine; the circular valley of Bohemia, and the plain on which Dresden is situated, in that of the Elbe; and the Danube, beside many others, traverses a basin of this kind that composes a great part of Hungary. They occur in Scotland in Dumfriesshire, Perthshire, and Aberdeenshire. The Tay at Perth, before issuing from the narrow pass between the hills of Kinnoul and Moncrieff, points out one instance of them.

These inequalities, which we have enumerated under the terms of low land and high land, mountain-groups and alpine summits, are not more remarkable for the manner in which they diversify the surface of the earth, than for the difference of the mineral masses which they exhibit. The more elevated regions are composed of bare cliffy rocks, masses generally crystallised to a certain extent, and in some cases highly indurated, and presenting pointed abrupt surfaces. As we descend, the rocks lose their crystalline appearance, and we meet with slime and clayey fossils in greater abundance. Still lower down, we find fragments of rock, rolled pieces of sandstone, sand, soil, or mould, and other soft, discontinuous, and fortuitously arranged substances. Another remarkable distinction of the fossils, examined at these different altitudes, consists in their state with regard to petrifactions of organic remains. In the higher elevations, and among the fossils highly crystallised, such as granite, we can discover no trace of the exuviæ of organised being, no petrifaction of animal forms. In the middle regions these appearances are rare, and exhibit little variety. They increase in abundance, and in the perfection of the animal structure, as we descend, till we arrive at petrifactions of the animals that now inhabit the earth along with us. That many of those appearances

which we have pointed out in the inequalities of the earth's surface have been modified by the action of the elements both mechanical and chemical, in a long course of ages, cannot be denied, and might be admitted with greater facility, did our limits permit us to describe the processes that are now advancing, under the same causes. Differences of temperature in promoting a disunion of contiguous portions; great floods or continued falls of rain in swelling rivers, brooks or mountain torrents, and enabling them to detach and carry along pieces of rock or parts of loose soil from the higher to the lower ground; the masses of snow and ice accumulated during the colder seasons, and precipitated on the lower ground by thaws; the powers of violent storms and earthquakes on the shores and lower levels, are among the agents whose forces and effects ought in such a view to be appreciated. Nor would the operation of chemical agency be undeserving of notice, when we consider the vast quantities of lime and other matters that are held dissolved in springs and streams, and which, being deposited gradually from their waters, incrust the edges of their channels, or petrify the wood upon their banks. Appearances of this kind occur frequently in the Velino, the Teverone, and many other rivers of Italy, and present us sometimes with the appearance of petrified thickets. The deposition of saline substances in many places, and the stalactitical form in which fossils of the flint genus sometimes occur, demonstrate that chemical precipitates from water are not confined to calcareous minerals. From these facts we may infer, that many of the phenomena on the earth's surface, which must have taken place in remote periods, are similar to those mechanical and chemical results, the causes of which are now in action; and that we have thus, as it were, before our eyes, though on a very diminished scale, a specimen of these mighty processes by which, under Providence, our globe was brought into a state fitted for becoming our habitation; but this inference we shall leave for future discussion, and proceed at present,

II. To give a very brief description of the *internal structure* of the earth's crust, and the relative position of its parts. And here fossils may be considered either, 1. With regard to the structure of the smaller portions or fragments into which they may be divided; or, 2. With regard to their distribution, arrangement, and relative position, as composing greater or smaller portions of the frame of our globe. When viewed in regard to their fragments, or hand-specimens, they are either simple or compound. Simple fossils may be defined to be those, the whole mass of which is uniform and homogeneous, of which every separate division affords the same materials, and exhibits the same appearances, and of which any given portion may be taken as a specimen or sample of the whole. Of this kind are limestone, serpentine, and varieties of other rocks.

Compound minerals, from the manner in which their particles or individual portions are joined, are denominated either cemented or aggregated. The cemented structure is formed when the individual particles may be perceived by the eye to be connected with a cement, and occurs in brecia, pudding-stone, and other fossils. The appearance of this structure allows us to infer, that the materials of the stone, where it is found, are not at present in the situation where they were first formed into a solid; but that they have been broken off from larger fragments, that they have been carried from their original place, and, after being modified in their course, have been deposited from a fluid, and connected by a finer extraneous substance. The aggregated structure is distinguished from the cemented, by the immediate connexion of the parts of the rock where it occurs, without the intervention of cement. Of the aggregated structure there are two kinds, simple and double, and each of these has its own subordinate differences.

Simple aggregation may characterise two states of a body. One of the component parts may predominate so much as to constitute a basis in which the others are imbedded, and consequently may prevent these others from mutual contact; or the fossils may be so arranged, that all the parts may be brought into immediate and reciprocal connexion. The first of those kinds of simple aggregation is again divided into two subordinate differences, denominated the porphyritic and amygdaloidal structure. The characteristic distinction of a porphyritic mineral is the dispersion of one of its constituent parts through a basis in the shape of grains or crystals; the amygdaloidal structure, on the other hand, presents vesicles or spongy-like spaces, dispersed irregularly through a basis, sometimes half-filled, sometimes empty, and sometimes completely filled. The crystal or grains in the first kind of rock appear to be of contemporaneous formation with the base, the matter that fills up the vesicular spaces in the amygdaloidal structure. Those fossils that possess that kind of simple aggregation, in which all the parts come into contact without the intervention of a base, are either granular or slaty. The granular structure is exhibited by rocks whose parts are nearly equal in all the dimensions of length, breadth, and thickness, and appear an aggregate of contemporaneous formations. The slaty structure, on the other hand, though its constituents seem of contemporaneous formation, is composed of parts whose length and breadth are more considerable than their thickness. Of the former kind of aggregation, granite and sienite are good examples; of the latter, gneiss and mica-slate may serve as instances of frequent occurrence.

Besides the aggregation called simple, which we have just described, there is what is called the compound aggregation, divided into five distinct subordinate kinds; 1. The granular slaty; 2. The slaty granular; 3. Granular porphyritic; 4. The slaty porphyritic; 5. The porphyritic amygdaloidal. The five kinds of compound aggregated structure, it will be seen from the name, are merely combinations of the four simple ones formerly mentioned, and do not require, in an abridged account like the present, to be particularly described. It may be proper only to remark, that, when the two adjectives descriptive of the compound structure are applied to a mass, the former expresses the appearance it exhibits

in the small or more confined view of it, and the latter in the great, or on the more extensive scale. Thus, to take an example, granular slaty describes a specimen which is granular in the small but slaty in the great, such as gneiss where the quartz and felspar form the granular texture, and the mica is disposed in the direction of the slaty structure. With these terms, and under the head of simple and compound minerals, we might enumerate and describe the different kinds of fossil masses that compose the crust of the earth. But referring to the body of the work, and the following head, for a description and an analysis of them, we proceed to describe the structure of mountain-masses, and of their general arrangement and relative position, as constituting the habitable globe. And here we quote Mr. Jameson's account of those arrangements, as the passage of his work which contains it expresses every thing necessary to be observed, in language so perspicuous and concise, that it would be useless to extend it, and almost impossible to abridge it.

Structure of Mountain-masses.

In the structure of mountain-masses, we have two principal kinds of structure to describe. These are the *stratified structure*, or that of strata, and the *seamed structure*, or that of distinct concretions.

Stratified structure.—When a mountain, or mountain-mass, composed of one species of rock, is divided, by means of parallel seams, into masses, whose length and breadth are greater than their thickness, or into what may be denominated tabular masses, which extend through the whole mountain, it is said to be stratified, and the individual masses are termed strata. Of this kind of structure we have instances in granite, limestone, clay-slate, and mica-slate. But if the mountain or mountain-mass consists of an alternation of different rocks, as of clay-slate and greenstone, or of gneiss and limestone, it is said to be composed of beds. The seams that separate the strata, are named strata seams, or seams of stratification.

Strata are in general from four to six feet thick in the older formations; but less considerable in the newer. They also vary very much in their position. The examination of this appearance of strata is of great importance to the geognost and mineralogical geographer.

The position of a stratum is determined by observing its inclination, dip, and direction.

The inclination is the angle which the stratum forms with the horizon, and is determined by the quadrant.

The dip is the point of the compass towards which the stratum inclines.

The direction is the angle which the stratum makes with the meridian, and is determined by the compass. It is always at right angles to the dip.

In making observations of this kind, it is of the greatest importance to distinguish the general direction and inclination from the partial. To effect this, we must take the results of a number of particular observations, and compare them together; and those similar angles which are the most numerous are to be considered as expressive of the general inclination and direction. It sometimes happens, that this general position has also its variations; these must also be attended to and noted. An acquaintance with the shape of a mountain group, will assist us very much in such investigations, as it is intimately connected with the general disposition of the stratification of the masses of which it is composed. It is also of importance to know the fall or declivity of a mountain group, as its direction and inclination are generally conformable, particularly in the older formations, with that of the super-imposed masses. Sometimes, indeed, there are exceptions to this rule; but these are easily explained.

It is often very difficult to determine, whether the rock we are examining be stratified or not, and, when the seams of stratification are hid, to know the direction of the strata. The following observations will be useful in removing some of the difficulties attending such investigations. 1. Strata are almost always parallel with the slaty structure of the stone. In certain porphyritic granites, the crystals of felspar appear to lie parallel with the strata; the latter character, however, is by no means so decisive as the former. 2. Strata can only be formed by parallel seams, which have the same direction and extent through the mountain-mass. Where parallel rents occur in different directions in the same species of rock, as in granite, sandstone, limestone, &c., it is evident that they are to be considered as accidental. 3. The seams of tabular distinct concretions, which are often of considerable extent, must not be confounded with strata seams, because their extent is not so considerable; and in each group of concretions the direction is different. 4. Where parallel rents have a different direction from the slaty structure of the stone, they are certainly accidental. Inattention to this circumstance has led several mineralogists into error. A striking instance of these rents was observed in a quarry of gneiss, in the forest of Tharand, in Upper Saxony. The gneiss, at first sight, appeared to be disposed in vertical strata, and as such it was viewed by De Luc; on a closer examination, however, the apparent vertical seams proved to be merely accidental parallel rents, perpendicular to the slaty structure of the stone; therefore the strata were horizontal, not vertical. 5. Beds are always parallel with the strata; these, therefore, point out the direction of the strata. 6. Although the slaty structure points out to us the direction which the strata must have, it does not follow, that a rock, having a slaty structure, is stratified. 7. In sandstone, limestone, and rock-salt, regular and very extensive stripes are sometimes observed, which have been confounded with true seams of stratification. An attentive examination, however, always discovers them traversing the real strata seams. Von Buch, in his description of Landeck, and geognostical observations made in Italy and Germany, and Friesleben, in his observations on Thuringia, describe striking instances of stripes resembling strata-seams.

Strata vary very considerably in the angle which they form with the horizon: they occur

from horizontal to vertical, but the general inclination is between horizontal and 45°. The differences are either original, or have been produced by subsequent changes. In strata composed almost entirely of mechanical depositions, any deviation from the horizontal position is generally to be considered as caused by a change of original position. We must be careful, however, not to confound highly inclined strata of sandstone with accidentally changed strata. This sandstone is in its original situation, and it owes this situation to the great portion of chemically dissolved matter combined with it, and the inclination of the bottom on which it is deposited. It may be said, that the bottom on which it rests has been forced up while the strata were soft, and has thus given them their present situation; but this explanation will not suffice, as these strata sometimes rest on walls of clay-slate; sometimes on loose sandstone; sometimes on faces composed of horizontal beds of sandstone. In strata composed of chemical precipitates, all the variety of inclination depends on the inequality of the bottom. If the bottom be very much inclined, so are the strata; if it be very flat, the superincumbent strata are also flat. It is therefore a fact, says this author, that all inclined strata, with a very few exceptions, have been formed so originally, and do not owe their inclination to a subsequent change.

Respecting the formation of strata and beds, many opinions have been proposed. Werner's explanation is satisfactory. He remarks, that strata and beds appear to be particular and individual depositions from a state of solution or suspension in water.

The stratified structure, as well may be supposed, occurs in many different rocks, and, in a more extended view, probably in all. Gneiss, mica-slate, and clay-slate, are always stratified; granite frequently; sienite sometimes stratified, sometimes unstratified; porphyry is seldom stratified; primitive limestone occurs both stratified and unstratified; flœtz-limestone, sandstone, and chalk, are most distinctly stratified.

When we examine the structure of a mountain, we must be careful that our observations be not too micrological, otherwise we shall undoubtedly fail in acquiring a distinct conception of it. This will appear evident, when we reflect that the geognostic features of nature are almost all on the great scale. In no case is this rule to be more strictly followed than in the examination of the stratified structure.

By not attending to this mode of examination, geognosts have fallen into numberless errors, and have frequently given to extensive tracts of country a most irregular and confused structure. Speculators building on these errors have represented the whole crust of the globe as an irregular and unseemly mass. It is, indeed, surprising, that men possessed of any knowledge of the beautiful harmony that prevails in the structure of organic beings, could for a moment believe it possible, that the great fabric of the globe itself, that magnificent display of omnipotence, should be destitute of all regularity in its structure, and be nothing more than a heap of ruins.

Seamed structure.—This structure is formed in those cases where there are seams which are parallel in one direction, but intersect each other in another. The most striking example of it is the columnar. The columns are sometimes regular, sometimes approach to the globular form, and occur even curvated. They are from a few inches to many fathoms long, the length being determined by the direction of the seams in one direction. In the islands of Staffa and Eigg there are admirable examples of this kind of structure. These columns are sometimes collected into groups, and such groups are often separated from each other by seams, or rather rents, which render them more distinct. Such groups may be considered as immense distinct concretions. The columns of such a group often tend towards a centre, some are parallel or perpendicular, others are horizontal; and all this variety sometimes occurs in the same hill. The columns are sometimes jointed, so that the convex extremity of the one column is fitted to the concave extremity of the other; and these columns are usually composed of globular distinct concretions. These globular concretions are composed of curved lamellar concretions. The spaces between the different globular concretions are composed of a looser matter than the concretions themselves; and it is by the falling out of this less compact substance that the structure of such columns is first developed. No rock shows this kind of structure more distinctly than basalt; in it we have all the varieties of the seamed structure, from the smallest, which is the lamellar distinct concretion, to the largest, which is formed by the grouping of columns. This kind of structure occurs also in porphyry and greenstone. Lava never presents any of the varieties of the seamed structure; a negative character which sufficiently distinguishes it from greenstone or basalt, with which it has been confounded.

Another kind of seamed structure, which deserves to be described, is the tabular seamed structure. It is distinguished from the lamellar by being always straight and much thicker. It is generally from three to nine feet in length, and rarely thicker than two or three inches. Basalt, in the lower parts of an individual deposition, has often this kind of structure. At first sight it is not unlike stratification. It also occurs in columnar porphyry.

The last, or third kind of seamed structure, is the large globular, or massive, in which all the dimensions are nearly alike. It occurs alone (that is, without any other kind of structure), and is from one to three or more fathoms in diameter. The larger balls show lamellar distinct concretions, which, we may observe, are always more solid the nearer we approach the centre. The roundish balls of granite, found dispersed over low countries, have been considered as bowlder or rolled stones, and many theories have been formed to account for their transportation. The granite of the island of Arran presents this kind of structure.

Structure of Formations.

By a rock-formation we understand a determinate assemblage of similar or dissimilar rock-

masses, which are characterised by external and internal relations as an independent whole, that is, as a unity in the series of rock-formations. These masses are either simple or compound. When the mass is uniform throughout, as is the case with limestone or sandstone, it constitutes what may be denominated a simple formation. Granite, gneiss, and mica-slate, are also of this kind. When dissimilar masses occur in a formation, as in the case of black-coal and flœtz-trap, it is said to be a compound formation.

Similar rocks are often repeated in very different periods. Each of these individual depositions is a particular formation, and the whole is denominated a series or suite of formations. Thus there is a limestone, a porphyry, a granite suite, &c.

It is a determinate character of certain formations, to constitute the principal mass of the mountain in which they occur: this is the case with gneiss, clay-slate, porphyry, and others. With other formations, on the contrary, it is as essential a character to occur only in single beds in the others, and these are said to be embedded. The older porphyry, limestone, and many others, are of this kind. When such individual beds occur in different principal formations (that is, are not confined to a single one), as primitive limestone, and primitive trap in gneiss, mica-slate, and clay-slate, &c.; when they, as is the case with these, form single independent wholes, which always continue the same, notwithstanding the difference of the rocks in which they are embedded; and lastly, when they form members of a series of formations, as is also the case in these instances, they are to be considered as independent formations. If, on the contrary, they are confined to one rock mass; if they bear no marks of a whole; and lastly, if they are connected with no series, or suite of formations, they are associated with the formation in which they are embedded, and it is said that they are subordinate to it. Roestone in the second sandstone formation, and copper-slate in the first flœtz-limestone, are examples of this kind. Beds composed of various fossils sometimes occur in different rock-masses. These fossils are usually those of which the rock-mass is principally composed, irregularly mixed, or are simple stones. Such beds are usually very irregular, do not extend through the whole rock-mass, and, in general, exhibit apparently great irregularity in all their relations. They are not alone capable of any discrimination, and are referred to the rock in which they occur. They have been, but rather improperly, denominated foreign beds. When single beds are well distinguished by the kind of stone of which they are composed, and if their composition shows certain peculiarities (as, for example, the determinate presence of metallic fossils, &c.), they are referred to the particular repositories, which we shall afterwards consider particularly. Beds of iron-pyrites and magnetic ironstone are of this kind.

Structure of the Crust of the Globe.

The last kind of structure we have to describe is by far the most extensive and important. It is the structure of the crust of the globe itself, in so far as it is composed of rock formations of different magnitudes, laid over each other in certain directions.

Under the five following heads, Werner comprehends every relation respecting the exten' and relative position of formations in general. 1. The original extent of formations. 2. Their present extent and continuity. 3. The position and direction of the strata of formations, in respect to the fundamental rock. 4. The direction of the strata themselves, without reference to the fundamental rock. 5. The relation of the outgoings of the strata to the exterior of the mountain.

It may be previously remarked, that when one formation lies on another, it is said to rest on it, and the rock on which it rests is termed the fundamental rock; and the plane, which separates the fundamental rock from the formation that covers it, is denominated the plane of separation, which is always parallel with the seams of the strata.

1. *Of the original extent of formations.*—Werner observes, that the greater number of formations have been universally deposited; and these he denominates universal formations. A very few, however, are to be considered as exceptions; and these he terms partial or anomalous formations.

Universal formations extend around the whole globe (not, however, without interruption), and constitute by far the greater part of the mass of which its crust is composed. Almost all the primitive, transition, and flœtz formations, are universal depositions; of these we may mention granite, gneiss, porphyry, limestone, and basalt.

Partial formations occur only here and there, and in single spots, and accompanied with appearances that indicate the partiality of their depositions. Thus, at Wehraw, in Lusatia, there is an excellent example of a partial formation. It consists of sandstone, limestone, bituminous shale, and iron-clay; and these rest on loose sand. The sandstone resembles in many respects that found in other sandstone formations; yet it does not belong to any of them, as is evident from its position, and the rocks with which it is associated. Werner conjectures that it may have been formed by a small and partial flood.

The examination of these partial appearances is of much importance, not only in extending our knowledge of the variety of formations, but in connecting the history of the earth more nearly with that of man.

2. *Of the present extent and continuity of formations.*—The present extent and continuity of formations is very different from what it was originally. We find them either extended uninterruptedly over great tracts of country, or they appear isolated, of little extent, and frequently resembling partial formations. In the one case they are said to be unbroken, in the other broken. The broken formations occur in small detached masses; and these have peculiar denominations, according to their position and shape.

When detached portions occur on the summits of hills, these are called cops. When portions occur, filling up hollow spaces between moun-

tains, they are denominated upfillings. And when a portion occurs only on one side of a mountain, it is said to be shield-formed, or to have the shape of a shield.

3. *Of the position and direction of strata in regard to the fundamental rock.*—When strata have the same direction as the fundamental rock, they are said to be conformable with it; if the direction is different, they are said to be unconformable. If they differ only in direction, we say that they are simply unconformable; but if they differ not only in direction, but lie over the ends of the strata of the fundamental rock, they are said to be unconformable and overlying. Overlying strata occur more frequently than simply uncomformable, and have far greater extent.

4. *Of the direction of the strata themselves, witnout reference to the fundamental rock.*—Strata are either straight, that is, disposed in one direction on the fundamental rock, or they turn around it, and enclose it; in this case they are said to be mantle-formed, or mantle-shaped. If the strata are not only wrapped around the fundamental rock, but also cover its extremities, they are said to be saddle-shaped.

When the upper part of the saddle-shape is carried away, the mantle-shape is formed.

Strata are sometimes concave, and they are then said to be basin-shaped; but, if the concavity be oblong, they are named trough-shaped. In the concave, that is, the basin and trough-shaped, and convex, that is, the saddle and mantle-shaped strata, the outgoings form circles; in the concave the outer and greatest circle is the oldest; in the convex, on the contrary, the outer and largest circle is the newest.

5. *Of the relation of the outgoings of the strata to the exterior of the mountain.*—We have to consider, first, the relation of the outgoings of strata to mountain-masses of considerable extent; and, secondly, to mountain caps.

In mountain-masses, the strata either cover each other completely, or the outgoings are open and exposed. When the outgoings are exposed, the newer strata have a rising or sinking level.

There are three different kinds of mountain-caps. In the first, the cap rests on a fundamental rock; the seams of the strata are parallel with the plane on which the strata rest, and these are unconformable and overlying; the second kind of cap is formed by a rock rising through the surrounding strata; and the third kind of cap is formed by portions of harder beds remaining after the superincumbent and softer strata have been carried away.

In the first, the rock is unconformable and overlying. The flœtz-trap and porphyry formations afford numerous examples of this kind of mountain-cap.

In the second, the newer strata are mantle-shaped. Granite often occurs in caps of this kind.

In the third, all the strata are conformable, so that the subjacent and superincumbent strata have the same direction with the bed which forms the cap. Primitive greenstone, in clay-slate, sometimes forms caps of this kind.

These strata and formations, and the kinds of rocks that compose them, follow one another in rising from the lower levels toward the higher; or, in other words, are placed above one another, not in an irregular or promiscuous manner; they follow a certain order of succession, and exhibit certain determinate relations. We do not, for instance, find a stratum of granite alternating with a stratum of sandstone, nor a formation of gneiss covering a bed of pit-coal. In examining the crust of the earth to discover this order of supraposition we observe a great class of rocks pushing in alpine chains, their summits above all the flatter strata, and affording on their sides, and at their base below, a resting place, or support for them. These rocks are found under every other stratified mass, and never covering, or resting upon, any.

In like manner the rest of the strata have certain relations to each other, from the granite to the most superficial mould.

III. We proceed now to the third division of the subject of geology, which was to give a short view of the various classes of *rocks and mineral masses*, that compose the earth's crust, arranged according to their relative situation. We shall best execute this part of our duty, by presenting to our readers Dr. Thomson's compressed, but comprehensive account of the Wernerian arrangement, drawn up with his usual acuteness, and displaying his usual extent of information and research. Some of the observations may be found in the article MINERALOGY, and under the titles of the different minerals to which they refer; but we could not on that account omit the repetition of them, without destroying the continuity and systematic connexion of this article.

'Werner has chosen the relative situation of rocks as the basis of his classification. He divides them into five classes. The first class consists of those rocks, which, if we were to suppose each layer to be extended over the whole earth, would in that case lie lowest, or nearest the centre of all the rocks which we know, and be covered by all the other rocks. The second class consists of those rocks which in that case would be immediately above the first class, and cover them. The third class would cover the second in the same manner; the fourth the third; and the fifth would be uppermost of all, and constitute the immediate surface of the earth. The first class of rocks are covered by all the rest, but never themselves lie over any other. The others lie in order over each other. These grand classes of rocks he has denominated formations, and distinguished them by the following specific names: 1. Primitive formations; 2. Transition formations; 3. Flœtz formations; 4. Alluvial formations; 5. Volcanic.

The primitive formations are of course the lowest of all, and the alluvial constitute the very surface of the earth; for the volcanic, as is obvious, are confined to particular points. Not that the primitive are always at a great depth under the surface, very often they are at the surface, or even constitute mountains. In such cases, the other classes of formations are wanting altogether. In like manner the transition, and other formations, may each in its turn occupy

the surface, or constitute the mass of a mountain. In such cases, all the subsequent formations which ought to cover them are wanting in that particular spot.

Each of these grand classes of formations consists of a greater or smaller number of rocks, which occupy a determinate position with respect to each other, and which, like the great formations themselves, may often be wanting in particular places. Let us take a view of the rocks which compose all these different formations.

Class I.—Primitive Formations.

The rocks which constitute the primitive formations are very numerous. They have been divided therefore into seven sets; which constitute as many primitive formations, and are distinguished each by the name of that particular rock which constitutes the greatest proportion of the formation. These seven sets of primitive formations are the following:—1. Granite; 2. Gneiss; 3. Mica-slate; 4. Clay-slate; 5. Newest primitive porphyry; 6. Sienite; 7. Newer serpentine.

The granite is the undermost, and the sienite the uppermost of the primitive formations. Granite is scarcely mixed with any other rock; but in gneiss, mica-slate, and clay-slate, there occur beds of old porphyry, primitive trap, primitive limestone, old serpentine, quartz rock. For that reason, these rocks are said to constitute formations subordinate to gneiss, mica-slate, and clay-slate. Gypsum occurs in beds in mica-slate, and old flint-slate occurs in the same way in clay-slate. Thus, besides the seven principal primitive formations, there occur seven subordinate formations, interspersed through the second, third, and fourth formations; and topaz rock, which lies over gneiss and under clay-slate, must be added to the list; so that the primitive formations altogether amount to fifteen.

If we suppose the nucleus of the earth to have been first formed, and the formations to have been afterwards deposited in succession upon this nucleus, it will follow that the lowest formation is the oldest, and that the formations are newer and newer according as they approach the surface. This supposition accounts for some of the names given to the primitive formations. That porphyry, for example, is considered as the oldest which lies lowest down in the series of formations, and those formations of porphyry which lie nearer the surface are considered as newer. Granite, of course, according to this way of speaking, is the oldest formation of all, while the alluvial are the newest of all. The following table exhibits a synoptical view of the primitive formations:—

Principal.	Subordinate.
1. Granite.	
2. Gneiss.	6. Older porphyry.
3. Mica-slate.	7. Primitive-trap.
4. Topaz-rock.	8. Primitive limestone.
5. Clay-slate.	9. Older serpentine.
	10. Quartz.
	11. Gypsum.
	12. Older flint-slate
	13. Newer porphyry.
	14. Sienite.
	15. Newer serpentine.

Let us consider each of them in the order of the formations.

1. *Granite* is the lowest of all the formations, and the basis upon which the others rest. It is composed of felspar, quartz, and mica; each in a crystallised state, and cohering together without any cement. The felspar is usually the most abundant ingredient, and the mica the smallest in quantity. The color of the quartz and mica is usually gray; but the felspar has a considerable variety of colors, occurring in different shades of white, gray, red, and green. The size of the constituents of granite varies considerably. Sometimes the grains are very large, and sometimes they are so small that the granite has the appearance of a sandstone. Sometimes it is porphyritic, large crystals of felspar occurring in a basis of fine-grained granite. Sometimes this rock is distinctly stratified, but in other cases no stratification can be perceived. The unstratified or massive granite is frequently composed of large globular masses, each of which is composed of concentric lamellar distinct concretions. The intervals between these balls consist of a softer granite, subject to crumble down when exposed to the action of the weather.

Besides the three constituents of which granite essentially consists, other crystallised minerals occasionally occur in it, though only in small quantities. These crystals are chiefly of schorl; sometimes garnet and tin-stone.

Granite very seldom contains among its strata beds of any foreign rock. Beds of felspar alone have occasionally been observed in it. It is not so rich in ores as some of the other formations. Tin and iron are the metals which are most abundant in it. Hitherto molybdena has been found chiefly in granite. It contains also silver, copper, lead, bismuth, arsenic, cobalt, tungsten, and titanium.

Besides the great granite formation, which has been just described, Werner has discovered a second; which is supposed to occur nearly in the same geognostic situation as porphyry and sienite. The granite veins which traverse gneiss, mica-slate, and clay-slate, belong to this formation. There are several particularities by which this newer granite may be distinguished from the other. It usually occurs in a lower level; it has commonly a deep red color; contains garnets; and is not porphyritic.

When granite is not covered by any other formation, it forms high insulated cliffs and steep rugged rocks.

2. *Gneiss* is the formation which lies immediately over granite, and into which indeed it gradually passes. Gneiss consists of the same constituents as granite; namely, felspar, quartz, and mica; but it differs in its structure, being disposed into slates from the prevalence of the mica. The texture of the individual slates is granular. Hence the structure of gneiss is granular slaty. Gneiss is always distinctly stratified. It sometimes contains crystals of schorl; but they are smaller and much more uncommon than in granite. Tourmaline is more common,

and so likewise is garnet. It contains in it many foreign beds, which is not the case with granite. Beds of three of the first six subordinate formations are found in it. It is, perhaps, richer in metallic ores than any other formation. Almost every metal occurs in it, either in beds or veins.

When gneiss is not covered by any other formation, it forms round-backed mountains, and likewise crags: but less steep and insulated than those composed of granite.

3. *Mica-slate.*—The formation which lies immediately over gneiss, and into which it insensibly passes, is mica-slate. This rock, like the preceding, is compound, and composed essentially of quartz and mica. Like gneiss it is slaty, but it differs from that rock in containing no felspar. It is always stratified. It very frequently contains garnet crystals in considerable quantity, so as to give it a porphyritic appearance. Its structure is then slaty porphyritic. It sometimes also contains crystals of tourmaline, cyanite, and granatite. Felspar likewise occurs in it occasionally; not, however, as a constituent, but in kidney-form and irregular masses. Like gneiss, it contains many foreign beds (older porphyry, primitive trap, primitive limestone, older serpentine, and gypsum, occur in it). It is rich in ores; containing beds of magnetic ironstone, pyrites, galena, copper pyrites (containing gold), blende, cinnabar, cobalt glance, magnetic pyrites, and sometimes even native gold. It abounds also in metalliferous veins.

4. *Clay-slate.*—Mica-slate gradually passes into clay-slate, the formation immediately over it. Clay-slate consists essentially of the mineral described in the preceding chapter under that name. This rock is always slaty and always stratified. When it approaches mica-slate, grains of quartz, and also of mica, may be distinguished in it. Occasionally also it contains crystals of felspar, schorl, tourmaline, garnet, and hornblende.

Under the name of clay-slate formation are included not only clay-slate, strictly so called, but likewise chlorite-slate, talc-slate, whet-slate, drawing-slate, and alum-slate; all of which occur along with pure clay-slate, are similarly stratified, and gradually pass into it and into each other, and therefore are considered as only constituting a part of the same formation: but these substances affect a particular order. The following table exhibits that order, beginning with the lowest or oldest, as it is called, and terminating with the uppermost or newest:—

1. Light yellowish gray clay-slate.
2. Dark gray clay-slate.
3. Green clay-slate.
4. Chlorite slate and potstone.
5. Talc slate.
6. Whet slate.
7. Bluish gray clay-slate.
8. Red clay-slate.
9. Drawing slate.
10. Alum slate.

Besides these different beds, which are considered as constituting the clay-slate formation, it contains also beds of all the eight subordinate formations. It contains also a considerable number of metallic ores in beds; as iron pyrites, copper pyrites, arsenic pyrites, cobalt, galena, &c. It contains also a variety of mineral veins.

Having now described the first four primitive formations, let us proceed to the subordinate formations; taking topaz rock along with them, on account of its rarity. These are the older porphyry, primitive trap, primitive limestone, older serpentine, quartz, topaz rock, gypsum, and primitive flint-slate.

5. *Older porphyry.*—By porphyry, as defined by Werner, is to be understood a rock consisting of a basis or ground of some compact mineral, and in this ground are interspersed crystals of some other mineral. The ground or basis varies in different porphyries. Sometimes it is clay-stone, sometimes pitch-stone, &c.; and the porphyry is named from this basis. The following are the species of porphyry that have been described:—1. Clay porphyry; 2. Horn-stone porphyry; 3. Felspar porphyry; 4. Pitch-stone porphyry; 5. Sienite porphyry; 6. Obsidian porphyry; 7. Pearl-stone porphyry.

The crystals interspersed through the different bases are commonly felspar, sometimes quartz, and sometimes hornblende and mica; but the last two are uncommon, especially the mica.

There are two very different formations of porphyry; the first is found in beds in gneiss, mica-slate, and clay-slate; whereas the second always lies over all these formations. Hence the first is distinguished by the name of older, and the second is called newer porphyry. It is the first of these that we are to consider at present.

The basis of the older porphyry is usually a species of horn-stone, and sometimes felspar; and the crystals which occur in it are felspar and quartz. Hence the older porphyry consists chiefly of horn-stone porphyry, and felspar porphyry. When not covered by other formations it sometimes forms single rocks, but never large mountains.

6. *Primitive trap.*—The word trap is Swedish, and signifies a stair. It was applied by the Swedish mineralogists to certain rocks, whose strata when exposed, from the one jutting out under the other, gave an appearance somewhat like a stair. The term was adopted by other nations, and was applied indiscriminately to a great variety of rocks, which bore a certain resemblance to each other. This generalisation introduced much confusion into the subject, which was first cleared up by Werner and his disciples. Under the term traps Werner comprehends certain series of rocks, distinguished chiefly by the hornblende, which they all contain. In the most ancient, the hornblende is almost pure; this purity gradually diminishes, and in the most recent traps the hornblende degenerates to a kind of indurated clay. There are, then, three formations of trap: 1. Primitive trap; 2. Transition trap; 3. Floetz trap. The first only occupies our attention at present.

The primitive trap formation contains a considerable number of rocks; which, occurring in different parts of the earth in similar situations, and as it were substituted for each other, are con-

sidered altogether as constituting only one formation. The following table exhibits a list of the rocks belonging to this formation:

I. Hornblende.
1. Granular or common hornblende.
2. Hornblende slate.

II. Hornblende and felspar united.
i. Granular.
1. Common green-stone.
2. Porphyritic green-stone.
3. Green-stone porphyry.
4. Green porphyry.
ii. Slaty.
1. Green-stone slate.

III. Hornblende and mica united.
1. Porphyritic trap.

The first two of these rocks consist essentially of the minerals described under the names of common hornblende and hornblende slate. The latter sometimes passes into fine slaty gneiss and into chlorite slate.

Common green-stone is composed of hornblende and felspar, both in the state of grains or small crystals, and the hornblende usually constitutes by far the greatest proportion of the mass. The felspar is almost always tinged green from the hornblende. This rock sometimes contains a little mica; sometimes it is intersected by small veins of quartz and actinolite; and sometimes also, though less frequently, of felspar and calcareous spar.

Porphyritic green-stone, like the preceding rock, is a compound of granular hornblende and felspar; but it contains likewise large crystals of felspar and quartz, interspersed through the green-stone ground.

Green-stone porphyry (black porphyry of the antiquary) is a rock consisting of granular green-stone, so small grained that at first sight it has the appearance of being a simple stone; containing in it large crystals of felspar, colored green from hornblende.

Green porphyry (the verde antico serpentine) is a rock which has for its ground a mixture of hornblende and felspar, so intimate that the two ingredients cannot be distinguished by the naked eye, and having a blackish green or pistachio green color. This trap contains greenish colored feispar crystals, often cruciform.

Green-stone slate is a rock composed of hornblende and felspar, and sometimes a little mica, and having a slaty texture. It is very hard, but, like the other species of greenstone, soon withers when exposed to the air.

Porphyritic trap is a rock composed of an intimate mixture of hornblende and felspar, containing in it large plates of mica, which give it a porphyritic appearance.

All the rocks of the primitive trap formation are characterised by containing a mixture of iron pyrites. Their stratification is indistinct; and, indeed, if we except green-stone slate and hornblende slate, usually not perceptible. When primitive trap is not covered by any other formation, it constitutes considerable hills and cliffs. It abounds in ores, especially green-stone slate.

7. *Primitive limestone.*—Limestone occurs in all the four grand classes of formations, but it assumes a peculiar and characteristic appearance in each. In the primitive it is distinctly crystalline and transparent. The crystalline texture gradually becomes less and less distinct, as the formations advance, till at last the limestone assumes the appearance of an earthy deposite.

Primitive limestone occurs usually in beds, and seldom forms entire mountains. Its color is usually white, sometimes it is gray, but very seldom assumes any other color. It is the species of limestone described already under the name of granular foliated. It sometimes contains in it quartz, mica, hornblende, actilonite, garnet, tremolite, talc, clay-slate, serpentine, asbestus, blende, galena, common and magnetic pyrites, and magnetic ironstone. The ores are usually found at the lower part of the beds of limestone. It is sometimes stratified, and sometimes not. When not covered by any other formation, it forms steep bare rocks; and, when it occurs in considerable quantities, often contains caverns.

8. *Older serpentine.*—The serpentine formation consists essentially of the mineral described already under that name. Two subspecies were thus described; namely, the common and precious serpentine. The latter (at least chiefly) constitutes the formation at present to be described. It occurs, like the other subordinate primitive formations, in beds in gneiss, mica, and clay-slate, and alternates with limestone. It is seldom stratified. It contains in it galena, and auriferous arsenic pyrites.

9. *Quartz* occurs in beds, and in no great quantity. It is usually granular and of a white color; sometimes it contains a mixture of mica, which gives it a slaty texture. It is very often unstratified; but, as it abounds in rents, these have often been mistaken for strata.

10. *Topaz rock.*—The rock which constitutes this formation is very rare, having been observed only in Saxony, where it constitutes a mountain. There it rests on gneiss, and is covered by clay-slate. It is composed of three ingredients; namely, fine granular quartz, schorl in thin prismatic distinct concretions, and topaz almost massive. These are arranged in thin layers, and these again are divided into roundish and granular distinct concretions, so that the rock is slaty granular. The intervals between these concretions are filled up with a yellowish or greenish colored lithomarge.

11. *Gypsum* was formerly believed to be peculiar to the flœtz formations; but an immense bed of it has lately been discovered in Switzerland in mica-slate. This primitive gypsum is characterised by containing mica and clay-slate.

12. *Primitive flint slate.*—This rock consists essentially of the mineral, described already under the name of flint slate. It is often traversed by veins of quartz. There are two formations of it; namely, the primitive, which occurs in beds in clay-slate, and another which belongs to the transition formations.

Having now described the eight formations

which are subordinate to gneiss, mica, and clay-slates, let us proceed to the remaining primitive formations, which always cover clay-slate, and are therefore considered as newer than it. These are the newer primitive porphyry, sienite, and the newer serpentine.

13. *Newer Porphyry.*—To this formation belong the following species of porphyry; namely, clay porphyry, pitchstone porphyry, obsidian porphyry, pearlstone porphyry, and sometimes felspar porphyry. Clay porphyry is by far the most common. To this formation also belongs claystone, a mineral already described. It constitutes the basis of clay porphyry, and frequently occurs without any crystals of felspar or quartz. To it we must also refer a kind of breccia porphyry, composed chiefly of fragments of hornstone porphyry and felspar porphyry.

14. *Sienite.*—This rock occurs usually along with porphyry; and, when they are both together, the sienite generally forms the uppermost part of the hill.

Sienite is a rock composed essentially of felspar and hornblende, the same constituents which form green-stone; but in sienite the felspar is the prevailing ingredient, whereas in green-stone it is the hornblende. In sienite the felspar is usually red, and very seldom has a tinge of green, whereas in green-stone the felspar is never red, but almost always greenish white. The structure of sienite is granular, and the grains vary greatly in size; sometimes small grained sienite contains in it large crystals of felspar; it is then called porphyritic sienite. When the two ingredients that constitute sienite are so small, and so intimately mixed, that they cannot be distinguished by the naked eye, and when such a rock contains crystals of felspar and quartz, it is denominated sienite porphyry.

Sienite, like porphyry, contains few foreign beds: but it is rich in ores, containing gold, silver, iron, tin, copper, lead, &c., always however in veins.

The rocks of sienite are often divided into columns. Like the newer porphyry it often occurs in round masses.

15. *Newer serpentine.*—This formation consists of the rock composed essentially of the mineral called common serpentine. It bears a striking resemblance to the newer porphyry formation, and occurs in similar situations.

Class II.—Transition Formations.

Having described the primitive formations, let us now proceed to the second great class, the transition, which lie immediately over them. These are by no means so numerous, since they consist only of four sets; namely, 1. Greywacke; 2. Transition limestone; 3. Transition trap; 4. Transition flint-slate. They all alternate with each other.

It is in the transition rocks that petrifactions first make their appearance; and it deserves particular attention that they always consist of species of corals and zoophytes, which do not at present exist, and which therefore we must suppose extinct. The name transition has been imposed, as they are supposed to have been formed when the earth was passing from an uninhabited to an inhabited state.

1. *Greywacke.*—This formation consists of two different rocks, which usually alternate with each other, and pass into each other. These are greywacke and greywacke slate. The first characterises the formation. Greywacke is a rock composed of pieces of quartz, flint slate, felspar, and clay-slate, cemented together by a basis of clay-slate. The pieces are sometimes as large as a hen's egg; sometimes so small that they cannot be perceived by the naked eye. The clay-slate basis likewise varies in quantity considerably. It often contains soft plates of mica, and quartz veins are very common in it; sometimes it is so hard that it appears indurated by some siliceous cement. The texture of greywacke becomes gradually finer and finer grained, till at last it can no longer be perceived, and a slaty structure succeeds. It then passes into greywacke slate.

Greywacke slate is in fact a variety of clay-slate; distinguished from primitive slate by seldom showing a greenish or light yellowish grey color, or the silvery uninterrupted lustre of primitive slate. It contains no beds of quartz, but very often veins of that mineral; no crystals of felspar, schorl, tourmaline, garnet, or hornblende; nor beds of garnet, chlorite-slate, talc, or magnetic ironstone. It contains petrifaction The greywacke rocks are stratified. It contains immense beds of transition limestone, trap, and flint slate; and is rich in ores both in beds and veins, and the veins are often of an uncommonly large size.

2. *Transition limestone.*—This, like primitive limestone, is a simple rock; but it approaches more to compact, and is less transparent than the primitive. It contains often veins of calcareous spar, and exhibits a variety of colors, which give it a marbled appearance. It contains marine petrifactions of corals and zoophytes, which no longer exist, and which do not occur in the subsequent limestone formations. These petrifactions increase in quantity as the beds of transition limestone advance farther and farther in their position from the primitive formations. It is often mixed with greywacke slate, which gives it a slaty texture. It occurs in beds of greater and smaller size, and often forms whole mountains. It contains no foreign beds except of transition trap. It is scarcely stratified. It is rich in ores.

3. *Transition traps.*—This formation, as the name imports, consists of rocks distinguished by the great proportion of hornblende which they contain. It comprehends four species of rocks; namely, 1. Transition greenstone. 2. Amygdaloid. 3. Porphyritic transition trap. 4. Globular trap (kugel fels).

Transition greenstone is a rock composed of fine granular hornblende and felspar intimately mixed together, and not so distinctly crystallised as in primitive greenstone. Sometimes the mixture is so intimate that the two minerals cannot be distinguished. In that state it often becomes loose in its texture, and approaches wacke and basalt. In this last case it often contains vesi

cles. When these are filled up with other minerals, the rock passes into amygdaloid

Amygdaloid is nothing more than this last state of greenstone. The vesicles are filled up with calcareous spar, chalcedony, quartz, jasper agate, green earth, amethyst, &c., either completely or partially.

Sometimes the transition greenstone, in this softened state, contains crystals of felspar colored green by the hornblende. It then constitutes porphyritic transition trap.

Globular trap is a fine granular hornblende rock of a loose texture, and tending very strongly to clay; of a liver brown color, and containing in it globular masses composed of concentric lamellar concretions, and containing a hard kernel.

The transition trap rocks are only doubtfully stratified. They alternate with the other transition formations in beds, and sometimes compose whole mountains. Common and lenticular clay ironstone occurs in it in beds.

4. *Transition flint slate.*—This formation consists essentially of common flint slate and Lydian stone, which pass into each other. It is a simple stone, but is characterised by containing many veins of quartz. It is not stratified. When it constitutes rocks they are usually steep, and appear very much lacerated and worn down by the weather. This is occasioned by the numerous rents which this species of rock contains.

To this formation seems to belong riband jasper, which sometimes constitutes whole rocks. It may possibly occur also in some of the subsequent formations.

To these formations may be added transition gypsum, which Von Buch discovered, constituting a bed in greywacke slate, at Leogang in Salzburg.

Class III.—Flœtz Formations.

The next grand class of formations have received the name of flœtz, because they lie usually in beds much more nearly horizontal than the preceding. When not covered by a succeeding formation, they form hills which do not rise to the same height as the primitive or transition. They contain abundance of petrifactions; and these much more various in their nature than those which occur in the transition formations, consisting of shells, fish, plants, &c. indicating that they were formed at a period when organised beings abounded. The flœtz formations lie immediately over the transition in the following order.

1. *Old red sandstone.*—This formation lies immediately over the transition, or, where they are wanting, over the primitive rocks. Hence it is considered as the oldest of the flœtz formations.

Sandstone is composed of grains of quartz, or some other siliceous stone, cemented together by some basis, and can only be considered as a mechanical mixture. The cement is sometimes clay, sometimes quartz, lime, marl, &c., and the sandstone is named, in consequence, argillaceous, siliceous, calcareous, marly, &c. This cement varies much in quantity, but never predominates; sometimes it is too small in quantity to be perceived. The size of the grains is no less subject to variation; when they are large the rock is sometimes called pudding stone. Of the old red sandstone the grains are large. It is distinctly stratified, and contains few ores. Cobalt, however, occurs in it; and it is often impregnated with copper.

2. *First flœtz limestone.*—Flœtz limestone is of a gray color; its fracture compact; has no lustre, and is only translucent on the edges. Sometimes thin beds of granular foliated limestone occur in it; but they contain petrifactions, which distinguish them from primitive limestone. Flœtz limestone is well characterised by the masses of hornstone and flint which it contains.

The first flœtz limestone is characterised by a bed of bituminous marl slate, containing copper. This bed is always lowest, and therefore immediately contiguous to the sandstone. It contains but few petrifactions. They consist chiefly of fish. Various beds of marl occur in this formation, and likewise a species of vesicular limestone, known in Germany by the name of rauch wacke.

3. *First flœtz gypsum.*—Gypsum, in general, may be considered as a simple rock; sometimes, however, it contains crystals of boracite, arragonite, and quartz. Sulphur is likewise found in it, both disseminated and in compact masses. There are two formations of it.

The first flœtz gypsum lies immediately over the first flœtz limestone. It consists chiefly of foliated and compact gypsum, together with a good deal of selenite. It is in this formation that swinestone occurs, either in beds or mixed with the gypsum. Rock salt also belongs to it, and appears to lie over it in short thick beds, being usually mixed with a species of saline clay. Hence the saline springs, which obviously originate from rock salt, are likewise peculiar to this formation.

4. *Variegated sandstone.*—This formation lies immediately over the preceding. The rock which composes it consists of a fine granular argillaceous sandstone, usually of a green, brown, red, and white color. Several of these colors alternate in stripes, which gives the stone a variegated appearance. Hence the name. It often contains masses of a fat clay, of a greenish, reddish, or yellowish color.

This formation is characterised by two species of rocks, which occur in it in beds. These are, 1. The subspecies of limestone, described under the name of roestone; and, 2, Sandstone slate.

5. *Second flœtz gypsum.*—This formation lies over the preceding in beds, and is sometimes, to a certain degree, mixed with it. It contains foliated gypsum, but scarcely any selenite, and no swinestone; and is characterised by the fibrous gypsum, of which it is in a great measure composed. It is of no great extent, and destitute of petrifactions.

6. *Second flœtz limestone, or shell limestone.*—This formation is separated from the first floetz limestone by the beds of older gypsum, of variegated sandstone, and of second gypsum,

which constitute the third, fourth, and fifth formations. It is characterised by the vast number of shells which it contains in the state of petrifactions. Particles of galena are likewise found scattered through it.

7. *Third sandstone, or freestone.*—The relative position of this formation has not been well ascertained, yet it is known to cover all the preceding, and therefore to be much newer than either the first or second formations. It consists mostly of a sandstone of a white color, well adapted for building. It contains traces of coal, but no sandstone, slate, nor roe-stone; and gypsum never occurs either immediately over or under it. It is usually stratified, and contains natural rents or seams, which cross each other at right angles; the one parallel to the stratification, the other perpendicular to it, so that it can be easily quarried into large square blocks. This indeed is a character that in some measure applies to all the sandstones. When not covered by any other formation it forms beautiful hills and romantic valleys.

8. *Chalk.*—Chalk is one of the newest flœtz rocks. It is always near the sea coast. It contains numerous beds of nodular flint, often full of vesicles. Various petrifactions of echinites, belemnites, &c., occur in it. It is indistinctly stratified, and forms beautiful round knolls and hills of very small height. Pyrites is sometimes found in it, but scarcely any other metallic ore.

9. *Independent coal formation.*—This formation is deposited in detached patches, usually in valleys over the preceding flœtz rocks, or over the transition formation when the flœtz rocks are wanting. These patches, in general, have no connexion with each other. Hence the epithet independent, by which the formation is distinguished: but they are found in considerable quantities in the most distant parts of the earth, Europe, America, New Holland, and always similarly situated with respect to the other formations. Coal occurs in it in great abundance; though in the preceding formations it is very scarce, and indeed is only found in thin individual beds. Hence it is considered as characteristic of this formation. The rocks of which this formation is composed (not reckoning the coal) are the following: sandstone, coarse conglomerate, slate-clay, bituminous shale, indurated clay, limestone, marl, clay ironstone, porphyritic stone, greenstone.

Layers of these rocks alternate a great many times with each other, and in them the coal occurs in numerous beds, varying extremely in thickness. The subspecies of coal which occur in this formation are coarse coal, foliated coal, cannel coal, slate coal, and a little pitch-coal. Professor Jameson has likewise discovered glance coal in this formation.

All the different rocks of which this formation is composed seldom or never occur together. Hence it is presumed, that there are several subordinate formations belonging to the independent coal, which occupy determinate situations with respect to each other. Three such formations have been characterised. The oldest or lowest is composed of beds of indurated clay, limestone, marl, porphyritic stone, slate clay, bituminous shale, greenstone, and soft sandstone, and is characterised by containing in it some metallic ores. These are ores of copper, iron, lead, and perhaps also mercury. The second is composed of beds of indurated clay, marl, limestone, and porphyritic stone. It contains some pyrites, but no other ore. The third, or newest, is composed of soft sandstone, conglomerate, and slate-clay, and contains no ore.

The rocks belonging to this formation are very distinctly stratified. Abundance of vegetable petrifactions occur in it, especially in the sandstone and bituminous shale.

10. *Flœtz trap.*—The rocks of this formation are very remarkable. They cover the other flœtz rocks, precisely as the newer porphyry and sienite do the primitive. The level of the uncovered flœtz formations becomes gradually lower, in the order in which they have been described; but that of the flœtz trap is high, as it covers them all, and often forms the summit of hills, whose lower part consists of older formations. The rocks belonging to the flœtz-trap formations are of two kinds: namely, those which are peculiar to it, and those which occur also in other formations. The following are the rocks peculiar to this formation: wacke, iron-clay, basalt, pitchstone, greenstone, porphyry slate, graystone, amygdaloid, trap-tuff.

Basalt, in many treatises, claims the first place, as it characterises the flœtz formation; but it is now often referred to the volcanic formations. It consists essentially of the mineral described in another place under the name of basalt, for a basis, containing crystals of basaltic hornblende, augite, olivine, and iron-sand, which give it a porphyritic structure. It contains also vesicles, which are filled with zeolite, calcareous spar, lithomarge, &c. The vesicles are sometimes filled with water. Sometimes it passes into wacke; sometimes into graystone; and sometimes, though rarely, into porphyry slate.

Wacke is sometimes the simple mineral described already under that name. Sometimes it contains basaltic hornblende and mica, which give it a porphyritic appearance: sometimes it is spotted, from crystals which it contains. It passes sometimes into clay; sometimes into basalt. The iron-clay likewise has been described already.

Pitchstone was first observed in this formation by professor Jameson. It is distinguished from that which occurs in the older rocks by the following circumstances: Its colors are usually black or green; it is composed of lamellar distinct concretions, and it contains crystals of glassy felspar, or mionite as it is called.

Porphyry-slate is much less common than basalt; but where it does occur it usually forms considerable hills. This rock is slaty in the large, compact and splintery in the small. The basis of it consists of clinkstone; the crystals which it contains are of felspar and hornblende. It contains also zeolite, iron-sand, and some minerals not yet described.

Greystone is still less common than porphyry slate. It appears to consist of an intimate mixture of much white felspar and a little black hornblende. This basis contains augite and olivine.

Flœtz greenstone is an intimate mixture of

grains of felspar and hornblende. It is distinguished from primitive and transition greenstone by the more intimate mixture and less crystallised appearance of the constituents. It passes into basalt.

Amygdaloid has for its basis sometimes wacke; sometimes a fine granular greenstone, frequently already somewhat decomposed. The vesicles which it contains are filled with green earth, lithomarge, steatite, &c. Sometimes they remain empty; sometimes this basis contains crystals of hornblende, &c., which gives the rock both a porphyritic and amygdaloidal structure.

Trap-tuff consists of fragments of flœtz trap and other rocks, cemented by a basis of alluvial clay. The minerals which this formation contains, in common with others, are not so numerous as the preceding. They are the following: sand, quartzy sandstone, clay, limestone, coal.

The grains of sand are of all degrees of magnitude. The clay sometimes contains schaum earth The coal consists chiefly of the following subspecies; common brown coal, bituminous wood, and pitch coal. Sometimes, though seldom, glance coal and columnar coal occur in this formation.

It is chiefly in the beds of plaster that the great number of fossil bones of land animals have been found, for the description of which we are chiefly indebted to Cuvier.

Class IV.—Alluvial Formations.

The alluvial formations constitute the great mass of the earth's surface. They have been formed by the gradual action of rain and river water upon the other formations, and may be considered as very recent formations; or rather as deposites, the formation of which is still constantly going on. They may be divided into two kinds; namely, those deposited in the valleys of mountainous districts, or upon the elevated plains which often occur in mountains; and those deposited upon flat land.

The first kind consists of sand, gravel, &c., which constituted the more solid parts of the neighbouring mountain; and which remained when the less solid parts were washed away. They sometimes contain ores (particularly gold and tin) which existed in the neighbouring mountains. Sometimes the alluvial soil is washed, in order to separate these ores. On mountain plains there occur also beds of loam.

The second kind of alluvial deposite, or that which occupies the flat land, consists of loam, clay, sand, turf, and calctuff. Here also occur earth and brown coal (in this mineral amber is found), wood coal, bituminous wood, and bog iron ore. The sand contains some metals, among others gold. The calctuff is a chemical deposite, and extends widely. It contains plants, roots, moss, bones, &c., which it has encrusted. The clay and sand often contain petrified wood, and likewise skeletons of quadrupeds.

Class V.—Volcanic Formations.

The volcanic formations are of two kinds; namely, the pseudo-volcanic and the true volcanic.

The pseudo-volcanic consist of minerals altered in consequence of the burning of beds of coal situated in their neighbourhood. Porcelain jasper, earth slag, burnt clay, columnar clay-iron stone, and perhaps also polishing slate, are the minerals which have been altered.

The real volcanic minerals are those which have been thrown out of the crater of a volcano. They are of three kinds; 1. Those substances which, having been thrown out from time to time, have formed the crater of the mountain: 2. Those which have been thrown out of the crater in a stream, and rolled down the mountain; they constitute lavas: 3. The water which is occasionally thrown out of volcanoes, containing ashes and other light substances, gradually evaporating, leaves the earthy matter behind it; this substance constitutes volcanic tuff.

Of veins.—Veins are mineral repositories which cut through the strata or beds of which a mountain is composed, and which are filled with substances more or less different from the rocks through which they pass. We shall have a very distinct notion of veins, if we suppose that the mountains in which they occur were split by some means or other, and that the rifts thus formed were filled up by the matter which constitutes veins. They are distinguished from beds by their direction, which is either perpendicular to the stratifications, or at least forms an angle with it.

Sometimes the strata through which veins pass are merely separated from each other; so that if we cut through the vein we find the same strata of the rock on both sides of it; but sometimes also the corresponding strata on one side are lower than on the other, as if the portion of the rock on one side of the vein had sunk a little, while the portion on the other side kept its original position. In such cases the side of the rock against which the vein leans, or the floor of the vein, has always its strata highest up; while the strata of the portion of rock which leans over the vein, or the roof of the vein, are always lowest. So that this is the portion which appears to have sunk. Such a change of position in the strata is known in this country by the name of a shift.

In considering veins, there are two circumstances which claim our attention; namely, 1. The shape of veins; and, 2, The substances with which they are filled.

All those mineralogists who have had the best opportunity of examining the shape of veins with correctness, agree in representing them as widest above, and as gradually diminishing in size as they deepen, till at last they terminate in a point, exactly as if they had been originally fissures. Sometimes, indeed, veins widen in different parts of their course, and afterwards contract again to their former size; but more commonly they continue diminishing gradually to their extremity.

Sometimes these veins are either partially or entirely empty. In that case they are denominated fissures, but most commonly they are filled with a matter more or less different from the rock through which they pass. Sometimes the vein is filled up with one species of mineral.

Thus we have veins of calcareous spar, of quartz, &c.; but, when it is of any size, we frequently find a variety of substances; these are disposed in regular layers always parallel to the sides of the vein, and they follow in their position a very regular order. One species of mineral constitutes the centre of the vein; on each side of this central bed the very same layers occur in the same order from the centre to the side of the vein. Almost every mineral substance which occurs in the mass of rocks has been found in veins.

Veins of course, according to our theory, are newer than the rocks in which they occur; and, when two veins cross, that is obviously the newest which traverses the other without interruption, as the fissures constituting the second vein must have been formed after the first vein was filled up. But when different veins contain the same minerals, arranged in the same order, Werner conceives that they were filled at the same time, and says that such veins belong to the same formation.

A general Synoptical Table of Geology was a desideratum in this science to a very late period. Dr. Aime Boué supplies us with the following: professing it to be his design to exhibit the science reduced to its most simple terms, and to enable every one to contemplate at a glance the principal geognostical facts ascertained by the labors of geologists. For the more clearly following the details in the synoptical table, he gives the following sketch of his theoretical views.

'1. All geologists who have had opportunities of examining burning and extinct volcanoes, agree in admitting the existence of extinct volcanoes, or of very anciently volcanised countries. 2. The greater number of geologists, and especially those who have visited extinct volcanoes, believe in the igneous origin of tertiary basalt, in the form of streams (coulées), beds, cones, and veins, and also that of trachyte. 3. A good many distinguished geologists agree in considering it as probable, that the secondary or flœtz trap rocks are of igneous origin, because these rocks agree in nature, position, and accidents, with basalt and trachyte. 4, And lastly, The intimate connexion of the porphyries with granite, syenite, and other unstratified rocks, not only in nature, but also in position, has induced some geologists to consider these also as of igneous formation.

'All the stratified rocks, with the exception of those of the first class, called primitive, are generally admitted to be of Neptunian origin. These rocks are distinguished by their peculiar texture, and by the imbedded crystalline minerals they contain, and which are foreign to stratified rocks. Although the stratified primitive rocks are placed under the head Neptunian, I consider them as Neptunian rocks which have been brought to their present state by the agency of heat, and that the imbedded minerals they contain were introduced among them by the action of some igneous power, as stated in the Edinburgh Philosophical Journal for July 1823, and Annales des Sciences Naturelles 1824. These stratified primitive rocks, then, are partly of Neptunian, partly of igneous formation. The tufaceous or conglomerated productions of ancient and modern volcanoes are more appropriately placed immediately after the igneous rocks, from which they are derived, than amongst the Neptunian rocks. Although the salt and gypsum deposites probably owe their origin to submarine solfataras, we have not separated them from the Neptunian series, because they were deposited by water. If these were removed from the Neptunian series, for the same reason we should be obliged also to separate from it masses of iron ore, and of other ores, certain salts, &c.

'My theoretical ideas have induced me to separate from the Neptunian series the metalliferous veins, because their contents are more easily traced to Plutonic than to Neptunian agents. The alterations occasioned in Neptunian rocks, by their proximity to those of igneous origin, are stated in the table only in a cursory way, although phenomena of high interest.

'The synoptical table also presents the most striking zoological characters of each formation, the different periods of the appearance and disappearance of the different classes of vegetables and of animals, and a proper selection of synonyms of the different denominations given to the rock formations.'

CLASS I.—PRIMITIVE ROCKS.

STRATIFIED OR NEPTUNIAN ROCKS.

Gneiss Formation.—Ex.: Erzgebirge, Bohmerwaldgebirge, Alps of Northern Styria, Black Forest, Limousin, Scotland, Sweden, Canada, &c.

Chief imbedded masses, or short subordinate beds.

- Hornblendic rocks,
  - Hornblendic gneiss.
  - Hornblende rock (Scand. Scot.)
  - Hornblende slate.

  N.B. Carbonate of strontian only here and in metalliferous veins.
- Limestones,
  - granular (Sweden, Scotland).
  - compact (Isle of Tiree).
- Quartz rock,—granular.

Great variety of crystalline minerals disseminated, as garnet, grenatite, kyanite, beryl, macle, corundum, cryolite, lazulite in limestone; or under the form of imbedded masses, as garnet-rock, magnetic iron ore (Sweden, Lapland), cobalt-glance (Tunnaberg), &c.

Great masses of Weisstein, or Whitestone. These form the passage from the gneiss texture to that of the granitic, by the igneous way.

Mica Slate Formation.—This rock, well characterised, does not seem to occupy so great tracts of country as the gneiss formation; but the feldspathic variety is abundantly distributed every where, and belongs to the gneiss (Scotland).

Short beds,

- Hornblendic rocks.
- Limestones, ...granular.
- Quartz rock, ..granular.
- Gypsum, ...granular (summit of Mount Cenis).

UNSTRATIFIED CRYSTALLINE OR IGNEOUS ROCKS.

Granitic rocks, in dome-like or imbedded masses (Kaolin, Bavaria; topaz rock of Saxony; lepidolite-granite of Moravia, &c.): short beds or bed-like veins (Scotland, Bohmerwaldgebirge): veins (Finland; with beryl and tourmaline, Bavaria): and small veins (Scotland, Pyrenees, and central France).

Sienitic rocks, in dome-like or imbedded masses (Bohemia); short beds or bed-like veins, veins, and small veins (Scotland).

Greenstone or Diabase, especially as short beds or bed-like veins, and as veins (Scotland, Norw.)

Serpentinous rocks, in imbedded or cylindrical masses, or bed-like veins (Moravia, Western Bohmerwaldgebirge). Probably of an age not far from that of the Greywacke formation.

The preceding deposites are posterior in formation to the stratified primitive rocks.

Porphyritic veins, or dikes of transition or secondary age (Western Bohmerwaldgebirge, Erzgebirge, &c.)

Basaltic rocks, in veins of a date more recent than the chalk (Scotland, &c.).

*** Network of metalliferous veins in the stratified and unstratified rocks, of a recent age; many of the age of secondary porphyry (Erzgebirge), or nearly contemporaneous with that of the containing rock, as in granite, &c. ittrotantalite, gadolinite, cerite, &c.

These rocks are intimately connected with the following formation, by innumerable and well known transitions, (Alps, Pyrenees, Scotland, Germany).

CLASS II.—TRANSITION ROCKS.

STRATIFIED OR NEPTUNIAN ROCKS.

FORMATION OF TALCOSE AND QUARTZOSE ROCKS, AND OF CLAY-SLATE.—Ex.: Alps, Pyrenees, Ardennes, Brittany, Bohemia, Scotland, &c.

Fossils very scarce. Zoophytæ, Orthoceratites, Crustaceæ, Trilobites (Brittany, La Manche, Alps), Monocotyledonous vegetables.

Chief rocks, different varieties of

- Mica-slate,
- Talc-slate, quartziferous,
- Chlorite-slate . . . quartziferous,
- Quartz rock, granular, compact, pretty often here and there, evidenly arenaceous or fragmentary. . . . . some crystalline minerals, magnetic iron-ore, &c.
- Gneiss, common, talcose, granitic,
- Clay-slate, ... quartziferous, ... some crystalline minerals, hollow-spar, iron-pyrites, dipyre.

Subordinate, or short beds of

- Whet-slate.
- Flinty-slate.
- Alum-slate.
- Slate with black chalk or anthracite.—N. B. Here first trace of coaly matter.
- Calcareous clay-slate (Alps).
- Limestone, granular (Pyrenees, Appennines, Alps). subgranular (Scotland) . . . some crystalline minerals, hornblende, augite, garnet, &c.
- Limestone, compact, with small sparry veins, . . brecciated (Alps, Appennines). . . . some crystalline minerals, felspar (Coldu Bonhomme).
- Dolomite, granular. compact . . . . some crystalline minerals, tremolite, vesuvian, &c.
- Gypsum (Alps of Savoy, Pyrenees, Tarascon), granular. compact.

N. B. Diamond geognostical position.

Short beds of rocks impregnated with hornblende, actinolite-slate.

Iron-glance-slate (Brazil and Bavaria).

Granitic rock, with iron-glance (Scotland, Vicentin).

Mica-slate, mixed with serpentine (Alps).

Potstone.

This formation passes into the following.

UNSTRATIFIED CRYSTALLINE OR IGNEOUS ROCKS.

- Granite—porphyritic and sometimes cellular, graphic. with pinite. dome-like masses, bed-like veins, veins, and small veins (Erzge.) . . . rarely with tertiary basalt veins (Arran). N. B. Imbedded and changed slaty rock.
- Sienite—imbedded masses, bed-like veins, large and small veins
- Diabase (Ophite of the Pyrenees), especially in short beds or bed-like veins, and veins.
- globular imbedded masses (Island of Corsica).
- Hyperstenic sienite or selagite—dome-like or imbedded masses, (Scotland, England, Germany), and veins (Scot).
- Diallage rock or Euphotide,—dome-like or imbedded masses (Appennines).
- Serpentine,—dome-like or imbedded masses, and bed-like veins, . . . many minerals imbedded, as hornblende, augite, chromate of iron, and chrysoprase.
- Augite rock,—dome-like or cylindrical masses, and veins (Pyren. Piedmont, . . . N. B. A breccia composed of granular limestone and augite accompanies this rock (Port de L'herz).
- Porphyries (Syn Elvan, Cornwall). bed-like veins, and veins of the age of recent greywacke (Vendée, Erzgeb. Cornwall.) . . . N. B. Sometimes slate altered at the contact (Trebischthal).

N. B. Lievrite, axinite, octahedrite, in veins in the slaty rocks.

*** Network of metalliferous veins in the slaty and unstratified rocks, many nearly contemporaneous with the containing unstratified rocks, others in the slaty rocks of the age of the greywacke or the secondary porphyries;—gold, native copper, red copper-ore, arseniate of iron, platina.—Uppermost limit of uran-ore and of tantalite.

STRATIFIED OR NEPTUNIAN ROCKS.

GREYWACKE FORMATION.—Ex.: Hartz, Scotland, England, Gesenke Vosges, &c.

Subordinate or short beds of:

- Conglomerate.
- Clay-slate.
- Flinty-slate (Leadhills).
- Alum-slate (Moffat).
- Anthracitiferous-slate (Vosges, Alps, Brittany)
- Limestone,
  - granular (Framont, Vosges).
  - subgranular (Scotland).
  - compact, with small spary veins (Hartz).
    - sparry iron-ore (Styria), in part converted into brown iron-stone.
- Dolomite, . . . compact, with Encrinites.

Recent Greywacke, or Transition Red Sandstone,

- Old red sandstone of England, Scotland, and the United States, (red sandstone of Scotland and Norway; conglomerate of the Alps, the Pyrenees, and Scotland).
- Mountain limestone of England, Scotland, and the United States (Picardy, Marquise, Belgium, Hartz). N. B. Carbonate of barytes only here in metalliferous veins.

The short beds of anthracite and impure coal, with vegetable impressions, explain the intimate connexion of this formation and the Coal Measures.

Terrestrial Monocotyledonous vegetables.

Fishes.

Near the granite or sienite, masses of Hornfels or Hornrock (Hartz, S.W. Scotland, Brittany), and of Schorliferous Quartz (Hartz).

Pseudo-volcanic Rocks.

UNSTRATIFIED CRYSTALLINE OR IGNEOUS ROCKS.

- Granite,
  - porphyritic: dome-like masses, bed-like veins (Scotland), and small veins (Scotland, Norway, even in limestone containing shells of this latter country).
  - metalliferous (Zinnwald), dome-like, imbedded, or cylindrical masses, N. B. Uppermost limit of the Topaz.
- Sienite,
  - porphyritic: dome-like or imbedded masses (Scotland), veins and small veins (Scotland, Norway).
  - zirconiferous, Norway, Scotland.
- Diabase or greenstone.
- Hyperstenic sienite or selagite . . . . Kidney-shaped masses.
- Euphotide, Variolite, Serpentine: dome-like or kidney-shaped masses or veins (Scotland, Pyrenees, Hartz).
- Porphyry,
  - globular, glandular, earthy,
    - dome-like or imbedded masses, short beds, bed-like veins (England), and veins.
      - N. B. Greywacke altered where in contact with porphyry, and sometimes imbedded in porphyry (Vorospatak, Lapos Banya in Transylvania); greywacke with bituminous wood and auriferous-pyrites, Vorospatak).
- Trap rocks.
  - amygdaloidal, with epidote, quartz, and calcareous-spar, Blatterstein (Rhenane, Westphalia), augitic: short beds (Prague), and veins (England).
- ☞ Porphyry-breccia, Trap-breccia: short beds united with the porphyry or trap masses, or short true Neptunian beds in the slaty rocks, and then passing into these (England, Vosges), and sometimes shelly (Vosges).

*** Network of metalliferous veins, in stratified and unstratified rocks; in these last, partly of contemporaneous formation;—red manganese-ore, tellurium.—Last limit of native gold, tin, bismuth, antimony, scheelium, arsenic ores, pharmacolite, and auriferous-pyrites.

CLASS III.—SECONDARY or FLŒTZ ROCKS.

STRATIFIED OR NEPTUNIAN ROCKS.

I. First Flœtz Sandstone Formation.

1. *Coal-Measures*, or *Coal Sandstone Deposit*—Ex.: Northern Germany, Tharandt, Plauen, Wettin, Bohemia, Moravia, Fünfkirchen, Oravitza (Bannat), Galicia, Silesia, St. Etienne, Auvergne, Bretagne, Belgium, England, Scotland, the United States, South America, New Holland, China, &c.

Chief rocks different varieties of:
- Sandstone feldspathic, &c., sometime reddish (Bohemia).
- Slate-clay,
- Bituminous-slate,
- Carbonate of iron,
- Coal,

Subordinate rocks:
- Calcareous marl,
- Compact limestone,
- fetid (W. borders of Rhine).

It is the only deposit which contains the true slate and pitch caking coal in great abundance.

2. *Secondary Red Sandstone Deposit* or *Todtliegendes*. Ex.: Northern Germany, Hall, Tharandt, Bohemia, Forez, Moulins, Bretagne, England, Southern Alps, Northern Alps, (Tyrol), &c.

Sometimes divided into:
- Red sandstone (inferior red conglomerate of the Vosges and Black Forest, of the Thuringerwald): it does not exist on the north side of the Pyrenees. New Red Sandstone of Buckland.
- Marly whitish sandstone (Weissliegende); (Chessy copper sandstone? some geologists place it among the red marl); Russian copper sandstone; chrome oxide.

Abundance of terrestrial monocotyledonous vegetables, some dicotyledonous. Absence of marine remains. Beds full of bivalve shells, more like freshwater *than* saltwater *shells.*

Fishes were in abundance during this period.

Pseudo-volcanic Rocks.

Porphyry deposits begin with the greywacke, and finish with the secondary red sandstone or even later. This is made evident by the alternations of porphyry and trap rocks or trap breccia with the arenaceous Neptunian deposits during this whole period.

UNSTRATIFIED CRYSTALLINE OR IGNEOUS ROCKS.

Porphyry,
- claystone-porphyry, compact or clinkstone-porpnyry,
  - dome-like masses (Saxony),
  - imbedded masses or short beds (Scotland, Silesia),
  - veins and bed-like veins (Scotland).
- semi-vitreous porphyry, pitchstone-porphyry,
  - bed-like veins, and veins (Arran),
  - and imbedded masses (Trebischthal).

Trap,
- augitic, wacke, feldspathic, earthy,
  - dome-like masses (Edinburgh, the Palatinate).
  - imbedded masses.—N. B. Upper limit of the Peridot and Limbilite)
  - short beds, bed-like veins, and veins: Edinburgh
- semi-vitreous,...imbedded masses or short beds (Palatinate of the Rhine).

N. B. Neptunian rocks are occasionally altered where in contact with porphyry or trap; for instance, coal is reduced to coke or graphite; sandstone is indurated, and slate-clay (sometimes with garnets, as in Anglesea), indurated

☞ Porphyry-breccia, fine var. Thonstein, Trap-breccia,
- short beds united with the porphyry, or short true or Neptunian beds in the sand-stone, and then passing into these or trap masses, and containing sometimes vegetable impressions (Upper Saxony).

N. B. Great deposite of agates, and some few zeolites, as stilbite, and mesotype.

⁂ Network of metalliferous veins, and small veins; mercury, &c.—Last limit of cobalt-ore, and crystallised gray manganese-ore.

The Weissliegende establish in Northern Germany a transition between the sandstone and the zechstein (Wettin).

CLASS III.—SECONDARY OR FLŒTZ ROCKS,—*Continued.*

STRATIFIED OR NEPTUNIAN ROCKS.

II. First Flœtz Limestone Formation.—Synon. Zechstein, Calcaire alpin; a part of the Hochbirge Kalk of Escher; the Hochgebirge Kalk of Uttinger.

UNSTRATIFIED CRYSTALLINE OR IGNEOUS ROCKS

Marine Fossils pretty rare.—Amphibious Animals, Insects, Algacites.—*Upper limit of Productus.*

Germany.	Silesia and Poland.	France.	Pyrenees.		England.	Northern Alps.	Southern Alps.	
Bituminous marl-slate.	Zechstein, metalliferous.	Bituminous marl-slate (Autun and Villefranche), with fishes and fruits.	Arenaceous grayish-black limestone, with vegetable impressions?	Magnesian Limestone.	slaty.	Magnesian limestone more or less & without petrifactions.	Compact Zechstein, without shells, (Recoaro).	Trap rocks,—cylindrical masses (Allgau), of what age? Datolite.
copper-slate, with fishes, insects, and carpolites.					compact, with productus and fishes.		Calcareous blackish marls (Vicentin).	Tertiary Augitic trap rocks, and Augitic trap-breccia, veins & bed-like veins, (Vicentin)
Zechstein, with Productus, falsely called Gryphæa by Schlotth.		Zechstein, with bivalves (Meillerie, near Autun).	Compact darkish limestone?		globular or botryoidal.	small granular compact & cracked.	Limestone or Dolonite.	
magnesian (Schwarzburg).						metalliferous.	compact and cracked (Idria).	N. B. Indurated or jaspery marl-slates and limestone, near augitic veins, at St. Antonio in the Vicentin.
ferriferous (Eisenkalk) Schmalkalden (sparry iron-ore).						fetid, or with bitumen (Bavaria).		
fetid (Stinkstein).						cellular (Eisenartz, Petersdorf Vienna).		
earthy (Asche).					earthy.	with sulphur (Bex)?	Existing, perhaps, in North and South America.	Small network of metalliferous veins;—galena, blende, calamine, and mercury (Idria).—Uppermost limit of mercury and of nickel.
breccia-like, (Rauchwacke), Rauherkalk, Glücksbrunn. Part Hohlenkalk of Germans.	Rauchwacke, with sulphur, (Tarnowitz).	fetid earthy breccia-like Figeac	Cellular or earthy limestone? with sulphur & petroleum (St. Boess).		breccia-like.		Connected by alternations with the variegated sandstone (Recoaro).	
Gypsum.								

Connected with the red marl by alternations and passages.

III. Second Flœtz Sandstone Formation, or Variegated or Saliferous Sandstone.—Syn. Greshouiller, Beud., and of Boué's Mem. sur l'Allemagne; Grauwacke of Alps of many geologists; Old Molasse in part, in vicinity of Alps.

Terrestrial monocotyledons and dicotyledons, many marine plants. Molluscæ, or Zoophytæ only in the upper part (Wieliczka, Soultz in Alsace).

	Germany.	Poland and Carpathians.	France.	Pyrenees and Spain.	England and Ireland.	N. Alps, Carpathians, and Appennines.	Southern Alps.
	Variegated sandstone (Bunter Sandstein).	Greywacke-like Sandstone.	Red small-grained sandstone of the Vosges, of the Aveyron, and Normandy?	Variegated marl, with gypsum and salt (St. Gisond, Arragon, Castile, and Cordona).	Red marl, with gypsum and salt-beds.		Variegated sandstone.
	Variegated marl, with gypsum and salt.—N. B. Uppermost limit of Anhydrite.	Marls, with algacites.	Variegated marl, with gypsum and salt (Alsace, Lorraine).	Compact limestone, (Dax) in the Globular limestone, upper part.			Variegated indurated marl, with gypsum.
		Compact gray limestone.	Calcareous marl.				Calcareous marl, upper part. Compact limestone, under part.
		Arenaceous limestone.	Compact limestone. Globular magnesian limestone Vic.) in the upper part.				Shelly marly sandstone.
Imbedded, or subordinate masses	Quartzy sandstone (Westphalia, Saxony)					Alternations, Marly sandstone, coarse, fine, graywacke like (Austria, Allgau, Trieste, Florence, Voirons).	Greywacke-like sandstone or conglomerate (Agordo), sometimes calcareous (Idria); only in the eastern part of north side of the Capellen Gebirge.
	Calcareous marl, Compact limestone, Wirtemberg, in the upper part.					Marls, with marine plants (syn. Pietra serena and forte of Tuscany (Mascigno).	
	Globular limestone (Roggenstein), Salzsee, in part magnesian.					Compact grayish or blackish limestone, Compact yellowish ruiniform limestone, Klostertneuberg, Tuscany, upper part.	
	Compact magnesian limestone (Coburg).					Arenaceous limestone.	
	Argillaceous hydrate of iron, Salzsee. Micaceous iron-ore, Pyrmont.					Very coarse conglomerate, sometimes calcareous (Allgau, Montserrat).	
						Marls with gypsum and salt (Hasselgebirge of Salzburg, Tyrol, Transylvania; with galena, iron-pyrites, micaceous iron-ore, and realgar, Tyrol).	
				Micaceous iron-ore (Bastenes), in gypsum.			
	Lignite, in marl.	Marly sandstone, with traces of lignite.	Lignite, with ferns (Vic, Soultz, Alsace).			Lignite in the salt and sandstones (Transylvania).	Lignite very little.
	Crystals of iron-pyrites, Crystals of quartz, Westphalia.		Gypsum of Decize, of the Saintonge, &c.	Crystals of: Arragonite (Bastenes). Iron-pyrites. Ironflint (Dax) Phosphorite & Glauberite.		Gypsum of Reuti, Heiligencreutz, and Tuscany.	Black marl, like Salzburg Hasselgebirge (Agordo); with realgar (Thal de Monaco).
	Crystals of boracite, in gypsum.					Crystals of quartz (Marmarosh, Vascharhely, Transylvania).	
	Salt-springs and salt much disseminated in the marl.		Salt-springs and salt-beds (Lorraine).	Salt-springs and salt-beds (Castile).	Salt-springs and beds.	Salt-springs, salt disseminated, and in beds (Bex).	No traces of salt.
							Tertiary Basaltic rocks, and Basaltic breccia, dome-like, or cuneiform masses or veins (Hessia), bed-like veins (Predazzo). N. B. Sandstone cracked, vitrified, or with its color changed at the contact with basalt (Saxe-Gotha and Vicentin). Elevated and altered sandstone by augite-porphyry (Val di Rif, Predazzo).

In all these different countries, the upper sandstones are connected with the following formation of Muschelkalk, excepting in England. This formation occurs in Calabria, Sicily, Persia, and in North and South America.

STRATIFIED OR NEPTUNIAN ROCKS.

UNSTRATIFIED CRYSTALLINE, OR IGNEOUS ROCKS.

IV. SECOND FLŒTZ LIMESTONE FORMATION, SHELL LIMESTONE, OR MUSCHELKALK.—Syn. Rauchgrauerkalk of Merian; Zechstein of the S.W. of Germany, and in part of many authors; part of the Calcaire alpin of the French; Calcaire à encrines of Beudi.

A good many Fossils. Cetaceæ, Plesiosaurus. First appearance of Belemnites and Echinites.

GERMANY.	NORTH-EASTERN FRANCE.	PYRENEES.	ENGLAND.	N. ALPS, CARPATHIANS AND APPENNINES?	SOUTHERN ALPS.	
Globular limestone, in part magnesian (under part).	Globular limestone (Vic).	Compact grayish limestone, sometimes cracked (St. Girond).	It does not exist here.	Compact well stratified limestone (Salzburg, Savoy, Dotis in Hungary).	Compact grayish limestone.	Tertiary Basalts, cuneiform masses and veins, Hessia, Vicentin.
Limestone, compact grayish (Wurtzburg), with encrinites.	Compact limestone, grayish (around the Vosges).	Perhaps also in the Arveiron, near Figeac.		Granular whitish limestone (Hall in Tyrol).	Compact limestone. with vegetable impressions (Recoaro).	Augit-porphyry, dome-like masses and veins, Predazo.
blackish and fetid.	With encrinites perhaps around the granitic plateau of Burgundy.			The compact limestone is grayish (with encrinites, Salzburg).	Marly grayish limestone.	N. B. Shell limestone indurated when in contact with, and imbedded in, basalt (Warburg, Vicentin); Calcaire alteré de Conzocoii.
magnesian, grayish (Coburg), yellowish.	magnesian, cellular (Saverne).			whitish (Salzburg).	Marly blackish limestone, near Idria.	
cellular.	with hornstone (Saverne).			yellowish.	with nodules of galena, calamine and manganesiferous epidot (Vicentin).	
with hornstone, (Coburg).	marly.			brownish (Ischel mines).		
marly, (in upper part.) with nodules of lead-glance, (Wirtemberg) with quartz crystals (Pyrmont),	Perhaps also existing in the Arveiron, Lot, and Var, but wanting in the whole western France.			reddish (Hallein, Dotis).		
very compact, alternating with the quadersandstone marls and sandstones (Pyrmont).				with hornstone (Carpathians, Salzburg).		
				blackish (Bex, Montmelian).		

V. Third Vizetz Sandstone Formation, or Quadersandstone, or White Sandstone.—Syn. Arthose of Brongniart and Bonnard.

Marine Fossils, and Monocotyledonous and Dicotyledonous Vegetables, rarely Ferns.

Germany.	Silesia.	North-eastern France.	Pyrenees.	England.	Northern Alps.	Southern Alps.	
Pretty fine quartzose sandstone, whitish, Bohemia, Hartz.	Pretty fine sandstone, Glatz county.	Yellowish or whitish sandstone, Vic.	Fine-grained sandstone, whitish, Navarreins.	It does exist here as a separate formation.	Sandstones shelly, with a marly cement,	Marly fine-grained sandstone.	
yellowish, Luxemburgh.		Siliceous sandstone.	yellowish.	The same is the case in the northwestern part of France.	Conglomerate, united with lias	reddish.	
ferruginous.		Coarse feldspathic sandstone.	gray and marly, Nalzon.		between Piesting and Pleningbach in Austria.	yellowish. Vicentin, Southern Tyrol.	Tertiary basalts, as veins, Bohemia.
with lignite.		shelly, Bonnard; around the granitic plateau of Burgundy, Autun, Avallon.	ferruginous.		The sandstone and lignite deposit of Anthevernes; if not, it is green sand?		
shelly, Coburg, Staffelstein.		Conglomerate, Metz.	shelly.				
Subordinate beds of: Coarse sandstone.		Sandstone with particles of lignite, Vigy, near Metz.	with vegetable impressions, Ogennes, or with lignite, Fossil resin?			North America.	
Conglomerate, Freyberg.		Nests of: Sulphate of barytes, Fluate of Lime, Lead-glance, Burgundy.	Orthes.			White quartzy sandstone, Lake Superior. See Schoolcraft's Narrative, 1820.	N. B. Indurated sandstones near basalt, Bohemia.
Potters' clay, Smectic clay, Clay-marl, in the upper part.		Some part of the metalliferous rock of the Departments de la Vienne and de la Charente belongs also to it; see Bull. Soc. Phil. April. 1823.			Brasil. Quartzy sandstone, coarse, fine.		
Gypsum, grayish, Durrheim					whitish, yellowish, ferruginous, Collection of Munich & Vienna.		Upper limit of copper carbonate.
Lignite, Coburg; or mixed in the sandstone, Westphalia.					Iron-hydrate Wavellite.		
Silicified marl, with vegetables and seeds, Amberg.							
Nests of: Fibrous malachite. Phosphate of lead, Vilseck, Bavaria. Lead-glance, Bleyberg, Rhenane, Prussia.							
The Scania coal sandstone belongs perhaps to it.—Vide Steffens's description.							

This formation is connected with the following by alternations: (Amberg, Westphalia).

STRATIFIED OR NEPTUNIAN ROCKS.

UNSTRATIFIED CRYSTALLINE OR IGNEOUS ROCKS.

VI. Third Flœtz Limestone Formation, or Jura Limestone.

Many marine Fossils, especially accumulated in particular spots or layers. First Nummulite deposits. Crawfishes, Terrestrial Mammalia, Birds, Insects.

Germany (S. W. part, and N. of the Hartz, and N. W. part).

Divisions,

- Arenaceous limestone.
- Clay-marl, —Phosphorite nodules, Amberg.
- Marls, aluminous, selenite, sulphate of strontian.
- Sandstones,
  - with hydrate of iron, wavellite, Amberg phosphat of iron.

Gryphite limestone, G. arcuata, &c. Wirtemberg,

Compact limestone, with Magnesian limestone or Dolomite,
- yellowish grayish
  - Ulm, Regensburg; part of Hohlenkalk of Friesleben.

Oolitic and compact limestone, Hildesheim.

Slaty limestone, with fishes and crawfishes, Solenhofen.

Clay-marl, with iron pea-ore, Bavaria.

Poland.

Marly limestone.

Compact limestone.

Clay-marl with iron-ore?

N. N. W. and S. E. France and Switzerland.

- Arenaceous limestone.
- Clay-marl.
- Marl, aluminous, sulphate of strontian, —lignite, & fossil resin Basle.
- Sandstones, hydrate of iron.

Gryphite limestone, synon. Liais, Pierre bleue. Lorraine

Compact limestone, with Magnesian limestone.

Oolitic and compact limestone.

Madreporal limestone, or Calcaire à polypiers, Normandy, Saintonge.

Clay-marl, with iron pea-ore.

Pyrenees.

Marly blackish gryphite limestone, rare, St. Girond.

Compact limestone with magnesian limestone, abundant.

lignite masses, Nalzen.

iron-ore.

Oolitic and compact limestone.

In Southern Spain there is also Jura limestone.

England, Ireland, and Scotland.

Lias,
- arenaceous limestone.
- clay-marls.
- marls, aluminous, Sky, &c.

Oolitic and compact limestones.

Coral rag and Stonefield, slate, &c.

Marls.

Northern Alps.

In Austria.

Lias,
- arenaceous limestone.
- marly limestone.
- marly sandstone.
- shelly.

Sandstones, lignite beds. fossil resin.

May not some magnesian limestones of Saltzburg belong to it?

Magnesian limestone of Pest.

S. Alps, Appennines, Ionian Isles, and Sicily, N. W.

Magnes. limestone, Tyrol, Frioul, Appennines, Sicily.

Oolitic and compact limestone, Belluno, Trieste, Dalmatia, Appennines,

Nummulite limestone of Istria,

with marls,
- lignite
- iron-pyrites

Istria.

Tertiary Augit-porphyry,
- veins, dome-like masses and even coulées.

Granitic rocks,
- dome-like, and here and there super-incumbent masses, Tyrol, Vicentin.

Basaltic rocks,
- veins, dome-like masses, tuff, Wirtemberg.

N. B. Irish lias converted into jaspery rock, Portrush, Sky.

Jura limestone become granular limestone, Predazzo.

These last marls connect this formation with the following.—The lias and the Jura limestone exist in South America, in the great Mississippi basin, and perhaps the compact limestone with silex of Brasil belongs also to it, or to the chalk.

VII. Iron and Green Sand.—Syn. Alpine variegated Sandstone of Uttinger; Variegated Sandstone of Pest of Beudant; Nagelfluh of C. Prevost; part of the Quadersandstone of the Germans.

A good many Fossils, Monocotyledonous and Dicotyledonous Vegetables, Fossil Resin.

Germany	Russia, Poland, Galicia.	France and Switzerland.	Pyrenees.	England and Ireland.	Northern Alps.	Southern Alps.	
Ferruginous sandstone, or sand. with clay and iron-ore, Blousko.	Perhaps here and there present.	Ferruginous sandstone or sand, fine / coarse — Perigord, Saintonge, Le Mans. with iron-ore, Perigord. siliceous wood.	Iron-sand, or sandstone.	Iron-sand.	Iron sandstone, Sonthofen. Nummulite compact limestone, Allgau, Switzerland. Green sandstone, Diablerets, Sonthofen. Madrepore sand of Leithagebirge. Calcareous conglomerate of Vienna. Iron-ore deposit, Sonthofen, Neukirchen, Switzerland. Lignite with fossil resin, do.	Green marly sandstone. shelly, Belluno. Marls. Arenaceous marl, near Schio.	Basalt, Basaltic tuff, short bed, Monte Costalta, Vicentin; Madona de San Orso, SE. Sicily (Daubeny). Tertiary Basalt, Basaltic tuff, veins, bed-like veins, Vicentin.
Green sand or sandstone, often marly, Regensburg, Bunzlau. fossil resin, in nests, Obora, Moravia.		Green sand or sandstone, Saintonge, Bellegarde. with masses of marls. lignite with fucus, Isle d'Aix. fossil, resin, ditto.	Green sand, or sandstone, Depart. des Landes, St. Severe. Lignite.	Green sand. marls.			

Intimately connected with the chloritose chalk.—Exists also in the Atlantic part of the United States.

VIII. Chalk Formation.—Synon. Calcaire à nummulites; a great part of Beudant's Hungarian Jura limestone; white Jura limestone of Hausmann.

Mastodon, Roebuck or Sheep, Vienna.
Uppermost limit of Belemnites.

Divisions,	Germany and Silesia.	Poland and Southern Russia.	France.	Pyrenees.	England and Ireland.	Northern Alps.	S. Alps, Appen. Malta, Sicily S. E. Zante, Gr.	
	Chloritic chalk, syn. part of the Planerkalk, Bohemia, Regensburg, Hartz, Westphalia. siliceous, Blansko, Moravia.	Compact white limestone, Austria, Hungary, and Transylvania.	Chloritic chalk, Le Mans, Saumur, Menshould. siliceous.	Chloritic chalk, Depart. des Landes.	Chloritic chalk, syn. Mulatto stone.	Chloritic chalk, Neukirchen, Diablerets, Servos.	Ar. Chlorite chalk marl, Belluno.	Tertiary Augit-porphyry, veins, of which the superior part overlies the chalk Schio.
	Chalk, marl, syn. Planerkalk, Bohemia, Hartz. compact white limestone, Paderborn.	Chloritic chalk marl, rare, Krapina, Croatia.	Chalk marl, with hornstone. magnesite.	Chalk marl and nummulite coarse limestone, Bastanes, near Dax.	Chalk marl. with hornstone.	Compact nummulite limestone. whitish. reddish.	Coral and nummulite limestone, Vicentin, Puglia.	Basalt, Basaltic tuff, veins, Ireland. bed-like veins, Vicentin, near Schio.
	Earthy chalk, Luneburg, with flints.	Coral and nummulite limestone, porous Leithagebirge. compact Clausenburg. chalky Krapina.	Earthy chalk. with flints. sulphate of strontian		Earthy chalk. with flint.	Sonthofen, Teisandorf, Schwytz Canton. Chalk marl, Neukirchen, Hausruck.	Compact limestone, syn. Scaglia. whitish, Sicily, Malta. reddish, sometimes a marble.	N. B. Chalk altered and cracked near augit-porphyry, Schio; indurated and like marl near basalt, Belfast. *** Network of metalliferous veins, argentiferous galena, &c., in the augit-porphyry; uppermost limit of galena.

Chalk marl is found in Scania, and in some Danish islands, Moen, &c., and in Rugen Island, &c.

CLASS IV.—TERTIARY ROCKS.

STRATIFIED OR NEPTUNIAN ROCKS.

I. First Tertiary Sandstone Formation.—Syn. Molasse Formation; Plastic Clay Formation.

Parisian Basin.	London and Is. Wight Basin.	Nice, Perpign. S. W. France B.	S. E. of France Basin.	Danish, N. Germany, and Russian Basin.	Rhine Basin.	Swiss and Bavarian Basins.	Austrian Morav. Hungar. & Transyl. v. B.	Italian & Sicilian Basins.
Plastic clay.	Plastic clay.	Molasse, or marly sandstones.	Plastic clay.	Plastic clay.	Plastic clay.	Molasse.	Plastic clay, Thalern, Austria.	Clay marls.
Clay marl.	Clay marl.		Sand.	Clay marl.	Clay marl.	Marls.	Clay marls.	Molasse.
Sand.	Sand.		Nagelfluh.	Sand.	Sand.	Nagelfluh.	Molasse.	Serpentine sandstone.
conglomerate.				rolled stones.	Marly sandstone, or molasse.	Lignite.	Sand, Pest.	Nagelfluh, Turin.
sandstone.				compact sandstone, Zeitz.	Nagelfluh.	Fetid marly limestone, Miesbach, with freshwater shells.	Semi-opal, Nicolschitz, Moravia.	Sulphur nodules?
Lignites.	Lignite.	Lignite, very scarce.	Lignite, Pont St. Esprit.	Lignite, insects & fishes, Coln.	Lignite.	Marls from Oningen, or perhaps of later date.	Lignite.	
Alum-earth.	Amber.			earthy.	limestone with freshwater shells.		Fetid marly limestone.	
Amber, latest fossil resin.	Fresh and salt water shells.			Alum-earth.	alum earth.		with freshwater shells.	
Uppermost fresh and salt water shells mixed together, as in the Baltic, &c.	Still ammonites?			earthy gypsum, Halle	selenite.		sulphur, nodules, Radeboy.	
Melanopside.				Amber, Baltic Sea.	Amber.		amber.	
Limit of blende				Mellite.			(Not in Transylvania).	
				Sulphur.				
				Bitumen, Zilensig.				

Insects, Fishes, &c.

Is there tertiary salt?

UNSTRATIFIED CRYSTALLINE OR IGNEOUS ROCKS.

- Trachyte, granitic, { mica, hornblende, augite, quartz, } dome-like masses.
- porphyritic, with garnets, earthy, } dome-like masses and coulées.
- Clinkstone, dome-like masses or coulées.
- vitreous, { pitchstone, obsidian, } as imbedded masses, Euganean Hills.
- pumice-like,
- Augite porphyry of Vicentine, Fassa, and Dunbarton.
- Basalt, augitic, olivine, { short beds, veins, cylindrical masses & coulées
- feldspathic, { especially as dome-like or imbedded masses.
- semi-vitreous (black or bluish), { imbedded masses, in coulées or cones, Marostico, Vicentin.
- ☞ Trachytic conglomerate, sometimes earthy, Pumice conglomerate, with alaunite, Basaltic conglomerate, } beds, or short beds or imbedded masses.
- ⁂ Few agates; great deposit of zeolites; opal, hauyne; uppermost limit of arragonite; undermost limit of nepheline and leucite.

II. First Tertiary Limestone, or Tertiary Coarse Limestone Formation.

Best marked shelly limestone.

Pseudo-volcanic Rocks,—Porcellanite, Earthy Slag, Tripoli.

Parisian Basin.	London and Isle Wight Basin.	Nice, Perpignan, S.W. France Basin.	S. E. of France Basin.	Danish, North Germany, and Russian Basin.	Rhine Basin.	Swiss and Bavarian Basin.	Austrian, Morav., Hungar. & Transylv. B.	Italian and Sicilian Basins.
Chloritic coarse limestone.	Blue London clay.	Compact limestone, Bourdeaux.	Chloretic limestone, St. Paul trois chateaux.	Chloritic limestone, Leingo, Cassel.	Sandy limestone, with fresh and salt water shells, syn. Fluviatile limestone, Steininger.	A kind of shelly coarse limestone, Lichtensteig, and perhaps the shelly molasse of St. Galles, &c.	Blue clay (syn. Tegel).	Blue clay.
sandy.	shelly.	sandy, with shells, Leognan, Dax.	Common coarse limestone, Dep. Bouches du Rhone, Perpignan	Sandy limestone, Anvers.	Coarse limestone, Frankfort, Turkheim.		shelly.	shelly, Bassano, Genoa, and Subappennines.
Coarse sandy limestone.		irony, Nice, Dax.		Coarse limestone Gallicia, rare occurrence.			selenite.	Coarse nummilite.
Coarse limestone.		Limestone with fresh water shells, or with fresh and salt water shells in the superior sandy part, Dax, Saucas.		It exists in some of the Danish islands, in Scania, and in Mecklenburg.			In the upper part melanopside	Limestone, Vicentin, Verona, Sicily.
Fluate of lime.							Fragments of lignite, especially in Austria, Sclavonia, &c.	Limestone with fishes.
Clay with lignite and fresh and salt water shells, } Montrouge, upper part.							Not present in Transylvania.	Lignite, Bolca, &c.
Sandstone, with shells, } Montrouge, upper part.								Dusodite of Sicily?
Marls and marly limestone.								
Undermost limit of fluor.								

Basaltic rocks, short beds, Bregonza; veins and coulées, Vicentin, Sicily.

☞ Basaltic conglomerate, beds or veins, Vicentin.

Sulphate of strontian.

Trachytic conglomerate, Pumice conglomerate, beds, Hungary.

Connected by alternations with the siliceous limestone.

III. *First Local Fresh-water, or Brackish-water Deposit.*

Sometimes Bones of great terrestrial Mammalia or extinct species.

N. B. Uppermost limit of Sulphate of Barytes and Strontian.

Parisian Basin.	London and Isle Wight B.	Nice, Perpignan, S. W. of France Basins.	S. E. of France Basin.	Rhine Basin.	Austrian, Moravian, Hung. & Trans. B.	Puy en Velay and Clermont Basins.
Siliceous limestone.	Marls.	Compact limestone.	Compact limestone.	Limestone.	Marls and sand, with marine and fresh water shells, Melanopside; Vienna; Arapatak, Transylvania; Gaya, Moravia.	Conglomerate.
Marls.		sometimes concretionary, always without shells.	Marls.	Marls, with fresh water shells, and bones, Buxweiler.		Marls.
Menilite, &c.		with fresh water shells and bones, Agen.	Gypsum, with bones, Aix.	Perhaps belonging to first tertiary sandstone.		Gypsum.
Gypsum.		Buhrrstone, Damazan.	Magnesite, Dep. du Garde.			Bitumen.
calcareous with bones.		siliceous wood, Grateloup.				Aurillac.
						Marls.
						Limestone.
						Siliceous limestone.

Basalt, in coulées, Cantal, Auvergne. in beds, Auvergne.

☞ Basaltic conglomerate, as short beds and imbedded masses, Auvergne, Aurillac.

Connected by alternations with the following formation.

CLASS IV.—TERTIARY ROCKS,—*Continued.*

STRATIFIED OR NEPTUNIAN ROCKS.

IV. SECOND TERTIARY ARENACEOUS AND CALCAREOUS FORMATION. *Sometimes Marine Fossils.*

PARISIAN BASIN.	LONDON AND I. WIGHT BASIN.	NICE, PERPIGNAN, S. W. FRANCE B.	S. E. OF FRANCE, BASIN.	DANISH, N. GERMANY & RUSS. B.	SWISS AND BAVARIAN BASIN.	AUSTR. MORAV. HUNG. TRA. BAS.	ITALIAN AND SICILIAN BASIN.
Marls. shelly, (Ostrea). Sand. shelly. iron-hydrate nodules.	Sand.	Marles with selenite, La Rume. shelly, Ostrea, Aiguillon. Sand, Landes. marly. Lenzinite, St. Severe. Iron-hydrate nodules.	Marls. Sand and sandstone. with shells, Dep. Bouches du Rhone.	Sand. Rolled masses and stones. Iron-hydrate nodules.	Marls, with selenite, S. O. Switzerland. Rolled masses. Nagelfluh.	Marls. Sand. Sandstone. Sandy limestone. with shells, Pest, Vienna, Hatzeck Valley in Transylvania.	Marls. Sand. with shells, Tuscany.

Uppermost limit of the Oxide of Manganese.

V. *Last Fresh-water Deposit.* Local Fresh-water deposits, formed by springs or basins of fresh-water at very different periods of time.

PARISIAN BASIN.	LONDON AND I. WIGHT BASIN.	S. E. OF FRANCE BASIN.	SWISS AND BAVARIAN BASIN.	AUSTRIAN, MORAVIAN, HUNG. & TRANS. BAS.	ITALIAN AND SICILIAN BASIN.
Meuliere or Buhrrstone. Marls. Limestone.	Marls, Limestone, } Isle of Wight.	Marls, Montpelier, &c. Limestone.	Marls, Heidenheim. Limestone, Wallerstein, Ulm. Siliceous limestone, Locle.	Marly limestone, Ofen. Limestone, Meidlerig, Wimpassing in Austria.	Limestone, in many places.

N. B. Tertiary rocks exist in the steppes of Asia, in India, in Africa, in the Canaries, Island of Madeiria, and the West Indian Islands (Guadaloupe, Barbadoes, &c.), in Columbia, and in the Atlantic United States.

CLASS V.—ALLUVIAL ROCKS.

OLD ALLUVIAL FORMATION.

Lake or fluviatile marls, resulting from ancient lakes, or the greater height of existing rivers.

Old alluvium of rivers, consisting of rolled stones, sand, &c.

Terrestrial and fluviatile Shells. Bones of extinct and living animals, but no bones of the human race.

France.	Germany.	Rhine.	Austria.
Marls, Aiguillon.	Marls, Saxony.	Marls, Kaiferstuhl, with calcareous concretions.	Marls, with bones and hard concretions, Theiss.

Sandy and marly shelly marine deposit. Local deposits above the sea level. Shells still living in the same countries, and not altered.

Shelly marls, in Scandinavia;—shelly sand, near Nice;—shelly marl, with oysters, near La Rochelle;—sand and marl, with shells and bones of cetacea, in Scotland, &c.

Old alluvium of sea,—consisting of rolled stones, sand, and decayed vegetables, &c.

NEW ALLUVIAL FORMATION.

New alluvium of rivers,—consisting of rolled stones, sand, clay, &c.

New alluvium of sea,—consisting of rolled stones, sand, clay, &c.

Local deposits, produced by the sinking down of rocky masses.

Deposits from water,—pisolithes, sulphur (Baden, Austria), bog iron-ore, calcareous tuff of Baden (calcaire d'eau douce of Prevost), of the natron lakes of Hungary and Transylvania, &c., calcareous tuff with rhinoceros bones, &c., in Germany.

Peat-bogs,—phosphate of iron.

EXTINCT AND BURNING VOLCANOES.

Modern Lavas, { stoney, vitreous, } { augitic, basaltic lava, feldspathic, obsidian, pumice, } coulées&veins.

Meionite, wollastonite, mellilite, &c.

Modern volcanic conglomerate, { augitic, basaltic tufa, feldspathic, pumice tufa, } short beds.

Lapilli and ashes, { augitic, titaniferous iron, feldspathic, } local deposit or short beds.

The various substances produced by sublimation in the volcanoes burning at the open air, and in those burning under water. (The effects of both kinds of volcanoes must not be quite the same).

The various substances produced by the solfataras on the continent (Buodeshegy in Transylvania), and by those under the sea (Island of St. Michael).

IV. After taking a view of the structure and arrangement of the crust of the earth, it is almost impossible to avoid forming some *theory* to explain the mode by which it was brought to its present habitable condition. Almost every appearance it presents informs us that it has undergone mighty revolutions: the regularly formed horizontal strata of some formations are similar to the arrangements of those mechanical deposits from water which at present come under our observation; and the crystalline structure of others forces us to infer a liquidity, by which only, according to the present laws of nature, that structure could be produced. The globular form of the earth is a sufficient proof that it was once liquid, because the liquid condition only could have allowed it to assume such a shape. The occurrence of petrified sea-shells, and of the petrified remains of fishes on high mountains, is also a certain evidence that the waters must at one time have risen beyond their present level, and that these eminences were of posterior formation to the animals whose exuviæ they enclose. When petrified bones and horns of land animals are found in fossils, the same inference may legitimately be made. The immense quantities of mineral coal found in the bowels of the earth, and the connexion that may be traced between it and moss, or the remains of plants decaying under our observation, carry us back to a luxuriant vegetation before the period when our present soil was formed, or perhaps before the crust was arranged that supports it.

It is needless to multiply examples where general appearances are so striking, or to engage in abstruse reasoning where inferences are so easily drawn. Indeed, without any induction of facts, but what a very superficial experience affords, every one almost is compelled, from existing phenomena, to form some hypothesis; and that hypothesis will be more or less rational, according as it is suggested by a greater or smaller number of observations, and explains consistently a greater or smaller number of facts. There can be no presumption in tracing the laws of Nature through her most magnificent operations, any more than through her most minute, provided we strictly adhere to the course she points out, and do not twist her language to support our own preconceived notions. The power of gravitation, by which a stone is brought to the earth, retains the planets in their orbits; and the principle of electricity which, when excited in a piece of glass or of wax, only enables it to attract a pith-ball or the fibres of a feather, produces, when collected in the sky, all the terrifying effects of a thunder-storm. There surely can be no good reason why we should not investigate the circumstances in these two classes of facts, and why, after due investigation, we should not refer them to the same law, though the scale on which we trace its operations be so extremely different. In the same manner, no prejudice should exist against the theories of the geologist, though he should apply those mechanical and chemical principles, which he can trace in the formation of a minute crystal or a stalactite, or in the arrangement of the bottom of a river, to account for the present appearances of the habitable world.

How far this class of philosophers have adhered to well ascertained principles, in their geological investigations and reasoning, is a different question. All that we mean to claim for them is, that there is no natural presumption against a theory; that their object is legitimate when they endeavour to form one; and that there are not wanting appearances which may render one plausible. Of late years two principal theories have been proposed to account for geological phenomena, which have attracted such interest as to cause a complete oblivion of every previous hypothesis. Though diametrically opposite in many of their principles, each has men of science and ability for its supporters, and each explains a certain class of facts to the satisfaction of its friends. The one which ranges the greatest number of mineralogists and chemists among its adherents, is called, as we have already stated, the Neptunian or Wernerian, from Werner the great mineralogist of Freyberg, who gave it first the form of a theory founded on observation. The other is denominated the Plutonic system, from its employing the agency of subterranean fire, in accounting for actual appearances, or Huttonian, from the name of the late Dr. Hutton, who gave that particular modification of it which is now considered the most consistent and philosophical; and which Mr. Playfair and Sir James Hall have so ably advocated and illustrated. Both these systems, it will easily be perceived, agree in assuming a state of fluidity as necessary to explain the texture of particular fossils, and the general structure of the mineral kingdom; but they start in direct opposition with regard to its cause, and of course give a different account of every subsequent event, the Wernerian attributing that fluidity to solution in water, the Huttonian to igneous fusion. The products of a mass held fluid, by one of those agents, is in many cases so different from those which would be formed by the other, that the geologist need not despair of being ultimately able to discriminate between them, and to determine what kind of agency has principally been employed. In the mean time we shall state the opinion entertained of the manner in which each is supposed to have operated, by those who make use of it in their respective systems.

The Wernerian supposes that the surface of our globe presented at first a chaotic mass, in which the materials that compose its solid strata were held in solution by water. In that mixed and confused state, certain changes in the relative situation of the principles took place by motions among them, and the particles were thus placed in a condition favorable for the exertion of chemical affinities. The operation of these chemical attractions was to bring the materials on which they acted into the crystalline shape, which would be more or less perfect in proportion to the freedom in which they were formed, or the interruptions to which in their formation they were subject. An aggregated mass of crystals was thus formed, consolidated and precipitated in the same manner as at present the crystals of salts are deposited from their solution in water. This first precipitation from the chaotic fluid constituted the rocks of the primitive class, so called from this inferred priority

of formation. In support of the conclusion on which this name is grounded, the nature and position of these rocks are appealed to. They are evidently in a highly crystalline condition, and they are found nearer the centre of the earth than any other strata of the mineral kingdom. From the nature of the mass before this primitive subsidence, neither animals nor vegetables could exist; at least there have been found in these rocks none of their remains. After these precipitates were separated that compose the primitive class, a nucleus was formed on which subsequent depositions might rest; and the waters; from a cause which it may be difficult to explain, seem to have subsided and left a part of the solid aggregate nearly dry. There is nothing in this theory, however, which requires us to pronounce upon the question of *the time* which it might take for these crystallisations and subsidences to take place: or how rapidly or slowly (as we should term it) they might be effected by the Divine Power.

Still in the fluid the materials of the other strata existed, and these, from similar attractions, had their tendencies to precipitation and arrangement. Precipitates, accordingly, were formed, and arranged on the solid mass already existing. These, however, are found to differ considerably from the primitive class, in having a less perfect crystalline structure, and in containing mixtures like mechanical depositions. From these circumstances they are classified apart under the name of the transition series, and their formation is accounted for by supposing, that, as the chaotic fluid was now diminished in depth, its waves would descend still lower, and come into more immediate contact with that part of the earth's crust already consolidated, and by their agitation, might detach portions of it to mix with the materials still in solution, but gradually depositing; and thus might disturb their formation. In addition to this constant wearing action of the waves, those parts that were gradually elevated above the subsiding waters would be exposed to other causes of attraction from the elements.

The waters continued to subside, and new strata began to make their appearance, forming rocks of the secondary class; but as the action of the elements now extended over a greater surface, and the force of the chaotic waves increased, we find greater supplies of mechanical deposits. These rocks, therefore, having been partly composed of the debris, or disintegrated fragments of the two former classes, have less of the crystalline structure, and are arranged more generally in parallel layers, somewhat like successive mechanical deposits from a fluid. They occupy a lower level than the mountain masses, from the detrition of which they appear partly to have been formed, and rest upon the more crystallised strata as their basis. They often exhibit striking characters of their origin and mode of formation, as may be seen in some kinds of sandstone, puddingstone, and breccia.

When the waters had retired so much as to permit the formation of this class of rocks, and had ceased to cover them, the crust of the earth was prepared for supporting animal and vegetable life, and received from the hand of nature families of both in abundance. Accordingly, we find that organic remains, no vestige of which can be found in rocks of the primitive class, and which can be but sparingly discovered in the transition series, increase in quantity and variety as we ascend from the old red sandstone, the earliest of the secondary strata.

The earth, however, if now arranged in the form which it at present assumes, was destined to undergo a mighty catastrophe. The waters which had subsided and left the dry land for the support of animals and vegetables, from inscrutable causes, again rose, resumed their former bed, and a second time a chaotic fluid invested the crust of the earth. This fluid must have ascended and almost covered the highest mountains, and in the words of Thomson,

' A shoreless ocean tumbled round the globe.'

This rise of the waters, Werner finds necessary to account for the position and structure of the secondary trap formations, so strangely alternating with or overlying the other secondary strata. This kind of formation he supposes must once have surrounded the earth, and formed almost a continuous crust, enclosing within it the other strata; but, by the sudden recession of the waters, that crust was broken, and, the greatest portion of it being carried away, there were only left those ' shreds and patches' of it that appear in the shape of detached mountains, columnar eminences, or confused masses of tufa. To the same period may be referred the origin of the coal formation; and to the same causes are its arrangements to be attributed. It is evidently and confessedly a substance of vegetable product, and presupposes the existence of a most luxuriant vegetation, before the organic kingdoms were involved in destruction by waters of the ocean.

After this great catastrophe, the waters again retired from off the face of the earth, and left the dry land for the plants and animals which now cover its surface. As they subsided, the exposed parts were acted upon by the influence of the ocean and the elements. Fragments were broken off from the solid rock, the softer portions were separated from those more indurated, successive layers of the surface were rendered friable and worn away. The debris thus formed was washed from the higher to the less elevated ground, from mountainous country and precipitous eminences, to plains and valleys; and being accumulated on the lower levels, and mixed with decayed animal and vegetable substances, composes the different species of alluvial rocks, and all the varieties of fertile soil.

The only other portion of the crust of the earth for which it would be necessary to account, and for which the theory under consideration can afford no explanation on its peculiar principle, are those formed of the products of volcanic fire. This class of rocks is so inconsiderable when compared with the extent of the stratified masses, and apparently so unconnected with them, that any explanation that may be adopted concerning it will not much affect a geological hypothesis, calculated to apply to the state of the more universal formations. The foregoing is the general outline of the Wernerian system, but there is an observation or two still necessary to complete it.

The formation of the beds or strata, by a successive deposition from water, would lead us to expect that the separate layers should be disposed horizontally, or that they should, in their whole extent, be arranged at right angles to the force of gravity; that they should be continuous or without fissures; and that they should have no elevations or depressions. The reverse of this, however, is the fact. Instead of universal horizontality, we frequently find them almost in a vertical position; instead of a continuous surface, like the coats of an onion, we see wide irregular rents and fissures; and, instead of a uniformly level appearance, we find mountains and alpine chains shooting up many thousand feet above their surrounding regions. In a system that lays claim to consistency, some explanation must be provided for reconciling these apparent anomalies with its general principles, and many suppositions may obviously be resorted to. The greatest inequalities of the earth's surface must have originated in the manner in which the primitive strata assumed the crystalline appearance, and the circumstances under which chemical affinities acted upon the materials of the chaotic fluid. The irregularities of the subsequent depositions may be partly owing to the kind of surface or bed on which they were arranged, and partly to an unequal subsidence in the contiguous parts deposited at the same time. Many rents, fissures, and dislocations, must have originated in the different degrees of solidity in the contiguous strata, in the unequal weight which crystallisation imposed upon them, in the withdrawing of the water sooner or later from different portions, and in several other causes, which it is unnecessary, in this short sketch, to enumerate. Many of these rents and fissures were made while the strata were still immersed in the waters, and, being filled up with precipitates of a more crystalline kind, constitute what are demominated veins, those repositories of mineral wealth. The structure of veins, narrowing in diameter as we descend, and the more regular disposition of their contents, according to laws of chemical attraction, are offered as decided proofs, both of their being filled by infiltration from above, and of their consolidation taking place in circumstances where the mass suffered no disturbance.

After this statement of the Wernerian theory, it might be proper to adduce some of the arguments that tend to confirm it, and some of the objections to which it has been thought liable; but both these will be more duly appreciated, after we have drawn a similar outline of the rival system to which it is opposed.

Dr. Hutton does not go back to chaos to lay the foundation of his habitable world, nor does he borrow much assistance in constructing his fabric from chemical attractions. He rests upon a pre-existing continent, out of the ruins of which our present dry land was formed and arranged principally by mechanical means. The portion of the globe which we now possess was, according to his hypothesis, the bottom of the sea when the older continent was decaying to form it; this older continent was then, of course, immersed; and, lest we should be alarmed at the recurrence of a similar catastrophe to this scene of our interests, we are told that it will be followed by a similar renovation. Thus, as one continent descends another rises, like the opposite scales of a balance; and, in the resources of the system, that order of organic nature is supposed to be traced by which the continued existence of the different races is secured, not by the perpetuity of the individual, but by the successive re-production of the kind. Our present world is thus one in an indefinite series of worlds which have existed in times past, and which are destined in future to appear; and all the less obvious or more striking changes which we witness are steps in the progress of mighty revolutions, to which the imagination can set no limits, either with regard to duration or magnitude.

He lays down as a certain position, that the solid parts of our earth are suffering decay from the action of the elements; that the portions detached from the more elevated ground are carried by the operation of water to the lower levels, and ultimately deposited in the basin of the ocean. He conceives, that tides and currents there arrange what is carried within their influence in layers along the bottom of the sea. This operation must proceed very slowly, but Dr. Hutton is not limited with respect to time, and can make as large a use of it as his system demands. Every river, every brook, every stream of water that we see, descends towards the ocean, charged with some portions of the surface over which it flows. All the soil and softer parts on which our plants are produced, have been confessedly loosened by water, and may be ultimately transported by it to the lowest levels of the same element. The strata of our dry land have all been thus carried from a pre-existing one, and arranged by the ocean which then covered it.

For their consolidation and other appearances, a new principle is assumed by the Huttonian geologists, which forms the chief characteristic of their system. They conceive that there perpetually exists in the heart of the mineral kingdom an immense force of heat that has been sufficient to fuse or to soften the various strata of which its crust is composed. The greater or less degree of liquidity which it thus produced, allowed the substances on which it acted to be consolidated upon cooling, either into crystalline fossils, or into less regular masses. The strata that were arranged at the bottom of the ocean, from the debris of a former world, were thus brought from their soft state of simple mechanical aggregation, to assume the compact structure of mountain rocks. To this powerful agent of internal heat, is not only assigned the office of first softening and finally indurating the strata, but that likewise of elevating them from the bottom of the sea, and converting them into dry land. The strata at the bottom of the ocean, being arranged by water, must, it is conceived, have been arranged in a horizontal direction, though now their appearance is extremely different. Their present fragmented and shattered surface, their deep chasms, their apparently ruinous contortions and dislocations, the vertical position of some of them, and the considerable declination of almost all, are also accounted for by the operation of internal fire.

The volatile ingredients of many bodies are

easily dissipated by caloric, and some compounds are discovered in the mineral kingdom, which must have been exposed, upon this hypothesis, to such an intensity of heat as would have effected a dissolution among their parts. To obviate objections of this kind, the modification of the effects of heat from the pressure under which it acts, is illustrated and applied with great ingenuity. This modification of heat, by pressure, is a very important fact to the Plutonian theory.

With regard to the order of time, or the succession in which the different rocks were formed that compose the crust of our earth, the Huttonian differs as much from the Wernerian as in the agent he principally employs. It will be remembered that Werner calls granite the earliest of the primitive rocks, from the supposition that it was separated from the chaos by crystalline precipitation, prior to the existence of any other mineral. Dr. Hutton, on the contrary, in his chronology of the fossil kingdom, places granite among its last formed products, and brings forward its appearance as a triumphant proof of the truth of his system. He conceives it in a state of fusion to have burst the superior strata with which it was enveloped, aided by the expansive power of his central fire, and to have issued forth from its confined furnace somewhat in the manner of a stream of lava from a volcano. The greatest heights of our globe, and the most extensive mountain ranges, are thus nothing else but the consolidated torrents of mighty eruptions, the matter of which had been rendered liquid by a subterranean fire, which still exists for the future accomplishment of similar effects, and gives proofs of present activity in the phenomena of the volcano. To its complete fusion is ascribed its perfect crystalline texture, its want of stratification, and its perfect freedom from organic remains.

A similar account is given by this system of the formation of veins, and of the fossils which generally fill them. They are rents caused by a force acting from beneath, and filled with matters injected into them from the same quarter in a state of fusion. Their contents are thus different from the materials of the strata which they traverse, and almost always present a highly crystalline structure.

Such is the outline of the Huttonian theory of the earth, as far as regards the manner in which its crust was stratified in the bottom of the ocean, consolidated into a compact mass, elevated into islands and continents, separated into distinct portions by veins and beds, and deranged in its horizontal appearances by an eruptive force. It is needless to mention the account which the supporters of this geological system give of volcanoes. They accord with their opinions, or perhaps suggested them; and the Wernerian leaves them in full possession of such ground without reluctance, satisfied that the central heat, which raised continents, is not necessary to explain their phenomena.

After giving a very imperfect account of these two theories, it may be necessary to say a few words with regard to their merits, the consistency of their parts, and their agreement with the phenomena which they profess to explain.

The Huttonian geologist commences with the history of the formation of the strata, as in his system the strata were deposited and arranged prior to the operation of fire upon them, and prior likewise to the existence of the more crystallised masses formed by fusion. With the mode of forming the stratified structure he therefore begins his system; and here likewise begin the objections to which it has been thought liable.

He supposes that the materials of all the strata are the debris of a pre-existing world; that they have been detached from it by the operation of the elements; carried, by the agency of water, to the ocean; and there spread in regular order over its bottom by the same power. Thus all the rocks that exhibit the stratified structure, are nothing but mechanical deposits, and rivers have been the great agents in conveying them to their present situation. Now it cannot fail to strike every one, that effects are here attributed to those streams that mark the surface of our globe, which they seem inadequate to produce. It is true that most rivers flow towards the ocean, charged with a part of the soil or softer rock which border their channels; but it is not so true that they carry this burden to their ultimate destination. A great part of it is deposited on their banks, or in the hollows of their courses, and much of what reaches the sea goes to form bars, or, being driven back to the shore, makes an addition to the sea-coast. It is evident that a small portion only can reach the ocean, and 'if the disintegration be so slow as is admitted,' observes Mr. Murray; 'if, as Dr. Hutton himself observes, the description which Polybius has given of the Pontus Euxinus, with the two opposite Bosphori, the Mæotis, the Propontis, and the port of Byzantium, is as applicable to the present state of things as it was at the writing of that history; if the Isthmus of Corinth is apparently the same at present as it was 2000 or 3000 years ago; if Scylla and Charybdis remain now as they were in ancient times, rocks hazardous for coasting vessels; if the port of Syracuse, with the island which forms the greater and less, and the fountain of Arethusa, the water of which the ancients divided from the sea with a wall, do not seem to be altered; and if, on the coast of Egypt, we find the rock on which was formerly built the famous tower of Pharos; and, at the eastern extremity of the port Eunoste, the sea-bath cut in the solid rock on the shore, to all appearance the same at this day as they were in ancient times: if such be the extreme slowness of the disintegration, the reflection is obvious, that, admitting it, a duration will be allowed to the world infinitely beyond our conception, and adequate to any purpose which we can conceive it designed to serve; and there is at least no necessity pointed out for supposing an arrangement by which it is to be perpetuated or restored.

'Neither are the facts conclusive which are stated by Dr. Hutton and Mr. Playfair, to prove that all our strata have originated from the waste of a former world, for they are equally well accounted for by the Wernerian system. It is stated, that many rocks are found which contain fragments of others, or which are connected with collections of gravel loose or consolidated. Such fragments and gravel necessarily suppose the existence of former strata, from the waste of which

they had originated. It is also observed, that, in many of the most extensive strata of the earth, remains or impressions of organic substances are found, both animal and vegetable, and of course these must have existed prior to the formation of such strata.

'These facts are considered by the Huttonian geologist as sufficient proof of the existence of a habitable world, from the decay of which ours has been formed. They are, however, equally well accounted for by the Neptunist, without admitting such a supposition. It is supposed that the existence of marine animals commenced after the crystallisation of the great primary strata; and that after that period, too, the waters of the ocean began to diminish in height, so as to leave elevated land, on which vegetation commenced. The retreat of the ocean continued to be gradual for many ages, and during this time the secondary strata were formed. It is obvious, therefore, that the fragments of rock, the sand and gravel which these often contain, or with which they are associated, or which even in many cases compose the greatest part of their mass, might originate from the disintegration of the primary strata above the level of the sea; a disintegration to which, in this early period of their consolidation, they might even be more liable than they are now. And the origin of the remains of marine animals, and even of vegetables, found in the secondary rocks, it is obvious, are equally well accounted for on this theory, since the existence of these may have begun previous to the existence of these strata. The facts, therefore, do not prove the hypothesis of Dr. Hutton, since, on a different hypothesis, they are explained with equal facility.

'It has been affirmed, however, that the same appearances of sand and gravel, and of marine impressions, are occasionally to be met with in the primitive strata, and that of course the Wernerian explanation is defective; for marine animals are not supposed to have existed at their formation; and it is obvious that the presence of sand and gravel are true indications of strata having existed before them.

'But it is asserted, on the other hand, by Neptunian geologists, that such appearances are not to be met with in strata truly primitive; but that when they do occur in strata, not of the secondary class, it is in those of the intermediate kind, or what Werner terms the rocks of transition. These, it will be recollected, are supposed to be posterior in their formation to the primary, but prior to their secondary strata, and to have been formed at that period when the existence of marine animals, or at least of some species of them, had commenced; and of course they may occasionally be found with impressions or remains of these beings. This supposition is liable to no difficulties, and seems to follow justly from the facts. Since certain rocks, having peculiar characters, and composing the most elevated parts of the globe, are found destitute of organic remains, while in others they are in abundance, doth not this afford a presumption, that the former had been produced prior to the period when these beings began to exist? and if rocks are found intermediate in their character between these, connected principally with the primary, but in general less elevated, and sometimes, though rarely, containing vestiges of sea animals, is it not reasonable to believe that these have been intermediate in their formation, and that at least the few species of those animals, whose remains are found in them, had begun to exist at the time they were formed.'

The Huttonian theory gives a solution of these phenomena, according to its own peculiar principles, which is pressed with greater difficulties than any which its adherents have been able to raise against its rival system. As all strata, according to it, are arrangements from the wrecks of a former world, they ought all to have their proportion of animal remains and fragmented fossils assigned them. No reason can be given for their existence in one situation which would not lead us likewise to expect their occurrence in another. Gneiss, mica-slate, and clay-slate are stratified rocks, and should have these proofs of their prior history inscribed upon them as legibly as slate-clay, sandstone, and the calcareous fossils. In the former class, however, they are seldom or never found; in the latter they are met with in abundance. The Huttonians endeavour to remove this inconsistency, by answering, that the gneiss and mica-slate are in a higher degree of crystallisation than the other kinds of rock in which petrifactions occur, and that, in the fusion which enabled them to assume that state, the traces of animal exuviæ may have been destroyed. This statement would obviate the objection, if it accorded with the fact; but unfortunately it has not that recommendation. We need only refer to that species of marble in which organic remains occur in abundance, to show that a higher perfection of the crystalline structure than is by this hypothesis consistent with their appearance in gneiss, actually admits of their existence in the carbonate of lime. Without allowing, with the Wernerian, a priority in the arrangement of these different kinds of rocks how shall we account for such phenomena? and by allowing such successive formations, how easily are they explained! Nor does the Huttonian theory labor with greater success, to reconcile the occurrence of fragments in some peculiar situations with its general principle of stratification. There frequently occurs between the strata, or what Werner calls the primitive and flœtz formations, a bed of conglomerated fragments of rolled pieces. This appearance, for instance, occurs placed upon a basis of clay-slate, and covered with a stratum of sandstone, and is easily accounted for on the Wernerian doctrine of the prior existence of granite, from the rocks of which such debris might be detached as formed these beds, while the waters of the chaos still covered the gneiss and the somewhat lower levels of the globe. Let us hear the Huttonian explanation of this fact, as detailed by Mr. Murray.

'The explanation, according to the Huttonian hypothesis, involves a supposition so extraordinary as to furnish a singular contrast with that of the Neptunian. It is supposed that the schistus had been formed in beds nearly horizontal, and that, by an expansive power exerted from beneath, these had been elevated to the surface, and

placed in a vertical position. In this situation, the bed of gravel, from which the breccia is formed, had been deposited on the summit of the vertical schistus. To admit of the formation of the horizontal strata of sandstone, it is further supposed, that the schistus, with this superincumbent breccia, had again sunk in the ocean, and remained depressed for ages, till the materials of the sandstone were deposited on it. These materials are supposed to have been then consolidated by the central fire operating on them, even with the intervention of the deep strata of schistus on which they are incumbent; and, lastly, we are told that the whole, when thus prepared, were again elevated by a new exertion of heat. It may surely be affirmed, without farther reasoning, that suppositions so extravagant and improbable can never be real interpretations of the operations of nature.'

The second class of operations in the order of succession, according to the Huttonian theory, is the process of consolidating, deranging, and elevating the earth's crust, formed, as above described, at the bottom of the sea; and the second great principle it assumes is the agency of internal heat for accomplishing these purposes. By employing this agent, and assigning it so important functions, the Huttonians have exposed their system to objections evident to those least acquainted with geological speculations, and which the most able Huttonian cannot satisfactorily obviate. The first thing that strikes us as a difficulty, in the conception of this theory, is the immense volume and intense force of that heat which could melt or soften masses so gigantic in their bulk, and so infusible in their nature, as those that compose the habitable world.

This, however, is an objection founded rather upon a comparison of the great operations of nature, with the limited scale on which we conduct our own, than upon any natural inconsistency in the theory against which it was alleged.

There are objections to the principle of the Huttonian theory of a different kind, and not so easily answered. What is the nature and source of this central heat? and what are the laws by which it is regulated? These are questions, in the answers to which the supporters of the Plutonic system are certain to involve themselves in difficulties, if not in contradictions. Does this heat arise from combustion? No; for combustion requires conditions for its existence which are not to be found in the circumstances under which this central heat is supposed to act. Where could such a quantity of combustible matter be found, as could fuse and eject those mighty chains of mountains which extend so far and rise so high? If combustible substances should be found in the magazines of nature, whence could come that gas which is necessary for this operation? The circumstances of compression under which the central heat is supposed to act, and the consequent exclusion from oxygen or atmospheric air, are sufficient to destroy every idea of combustion.

But even though we should admit the possibility of ordinary burning, in the instance before us, are the stores, both of the combustible materials and the supporters of combustion, inexhaustible? and will there always be sufficient quantities of them available for the purposes of making worlds when the old are worn out? or, in other words, for answering the ends of the theory in the renovation of nature? We all know that a substance which has undergone combustion, forms products which are not capable of undergoing a second time the same process.

It should be observed, however, that the ablest adherents of the Huttonian hypothesis have entirely renounced the use of fuel in the production of the central heat, and have resorted to other means of exciting and supporting it. Most of them also have given up the solar rays, friction, and condensation: indeed the supposition on which Mr. Playfair, the ablest supporter of the system, finally rests, seems little else than the old doctrine of occult qualities. If his hypothesis has any meaning, it implies, that an immense heat was originally stored in the lower parts of the earth, and that it is there preserved by the mutual action and reaction of the bodies in which it resides upon each other.

But its preservation in the same volume and intensity, without any fresh supply, is contrary to all the laws by which the action of heat is regulated. The only condition on which the hypothesis of its accumulation would be conceivable, would be a state in the bodies that contained it, so completely insulated that they could diffuse no more of it than what they received; or, in other words, a state in which no new distribution could take place, because the most perfect equilibrium of temperature was established among all the bodies which could, by their vicinity, partake of it, either by radiation or through the medium of conducting substances. Now it will not surely be pretended that there is, in the bowels of the earth, any region so insulated. Indeed the simple idea, that the central fire has softened the strata which were formerly cold mechanical deposits, presupposes a new distribution of its influence, with a consequent decrease of intensity in its original repository; and thus the very purpose for which its operation is assumed cannot be accomplished, without destroying the necessary conditions of its existence.

The other phenomena exhibited by veins, beds, and individual fossils, are more hostile to the hypothesis that employs fire in producing them, than even those which we have stated. But we cannot at present enter farther into the subject. We need only add that Dr. Boué seems to have adopted from the Huttonian theory some valuable suggestions, and that the commendation of M. Necker, with respect to the habits of Saussure as a geologist, seems well worthy the attention of all students of this science.

'In proportion to the avidity with which he sought for facts, was the care with which he avoided vain speculations. If he sometimes advances a hypothesis, it is with a reserve justly admired, although rarely imitated, and only when the facts seem imperiously to command it. When new facts come in opposition to his former opinions, he abandons or modifies them without regret.'

GE'OMANCER, *n. s.* } Γη and μαντις, a
GE'OMANCY, *n. s.* } prophet. Whatever
GEOMAN'TIC, *adj.* } relates to the persons or acts of fortune-tellers, astrologers, &c.

What say we of hem that beleven en divinales, as by flight, or by noise of briddes or of bestes, or by sort of *geomancie*. *Chaucer. The Persones Tale.*

Fortunetellers, jugglers, *geomancers*, and the incantatory impostors, though commonly men of inferior rank, daily delude the vulgar. *Browne.*

According to some there are four kinds of divination; hydromancy, pyromancy, aeromancy, and *geomancy*. *Ayliffe.*

Two *geomantick* figures were displayed
Above his head, a warrior and a maid;
One when direct, and one when retrograde. *Dryden.*

GEOMANCY, GEOMANTIA, is performed by means of a number of little points, or dots, made on paper at random: and by forming from the various lines and figures which those points present, a pretended judgment of futurity, upon any question proposed. The word is derived from the Greek γυ and μαντεια, divination; it being the ancient custom to cast little pebbles on the earth, and thence to form their conjectures, instead of the points afterwards made use of. Polydore Virgil defines geomancy a kind of divination performed by means of clefts or chinks made in the ground; and supposes the Persian Magi to have been the inventors of it.

GEOMETRY.

GEOM'ETRY, *n. s.* } Fr. *geometrie*; γεωμετρία; γεα and μετρέω, to measure. Pertaining to the art of measuring the earth: the science of quantity, extension, or magnitude, without regard to matter.
GEOM'ETER, *n. s.*
GEOM'ETRAL, *adj.*
GEOMET'RICAL, *adj.*
GEOMET'RIC, *adj.*
GEOM'ETRIZE, *v. n.*
GEOMET'RICALLY, *adv.*
GEOMETRIC'IAN, *n. s.*

A *geometrical* scheme is let in by the eyes but the demonstration is discerned by reason. *More.*

What a world of books offers itself, in all subjects, arts, and sciences, to the sweet content and capacity of the reader! In arithmetick, *geometry*, perspective, opticks, astronomy, architecture, sculpturâ, picturâ, of which so many and such elaborate treatises are of late written. *Burton. Anat. Mel.*

He that shall but see that *geometrical* tower of Gareganda at Bologna in Italy, the steeple and the clock at Strasburgh, will admire the effects of art, or that engine of Archimedes to remove the earth itself, if he had but a place to fasten his instrument. *Id.*

'Tis possible *geometrically* to contrive such an artificial motion as shall be of greater swiftness than the revolutions of the heavens. *Wilkin's Math.*

For he by *geometrick* scale
Could take the size of pots of ale. *Hudibras.*

Although there be a certain truth, *geometricians* would not receive satisfaction without demonstration thereof. *Browne.*

Must men take the measure of God just by the same *geometrical* proportions that he did that gathered the height and bigness of Hercules by his foot? *Stillingfleet.*

Him also for my censor I disdain,
Who thinks all science, as all virtue, vain;
Who counts *geometry* and numbers toys,
And with his foot the sacred dust destroys.
Dryden.

All the bones, muscles, and vessels of the body are contrived most *geometrically*, according to the strictest rules of mechanicks. *Ray.*

Does not this wise philosopher assert,
That the vast orb, which casts so fair his beams,
Is such, or not much bigger than he seems?
That the dimensions of his glorious face
Two *geometrick* feet do scarce surpass? *Blackmore.*

He became one of the chief *geometers* of his age. *Watts.*

How easily does an expert *geometrician*, with one glance of his eye, take in a complicated diagram, made up of many lines and circles! *Id.*

Definitions of the Science.

GEOMETRY, Gr. γεωμετρια, Fr. geometrie, originally signified the art of measuring the earth, or any distances or dimensions on or within it; but it is now used for the science of quantity, extension, or magnitude, abstractedly considered, without any regard to matter. Geometry is usually divided into speculative and practical; the former of which contemplates and treats of the properties of continued quantity abstractedly; and the latter applies these speculations and theorems to use and practice.

The word geometry literally signifies measuring of the earth, as it was the necessity of measuring the land that first gave occasion to study the principles and rules of this science, which has since been extended to numberless other speculations. Some define it the science of enquiring, inventing, and demonstrating all the affections of magnitude. Proclus styles it the knowledge of magnitudes and figures, with their limitations; as also of their ratios, affections, positions, and motions of every kind.

In a word, geometry, together with arithmetic, now forms the chief foundation of all the mathematics.

History of Geometry.

The invention of geometry is generally ascribed to the Egyptians. Herodotus, Diodorus, Strabo, and Proclus, all agree that the annual inundations of the Nile gave rise to it, by carrying away the land-marks and boundaries of estates and farms; and covering the surface of the ground with mud, which effaced every trace of their former limits. Hence the Egyptians were obliged every year to distinguish and lay out their lands by the consideration of their figure and quantity, that every person might have his own property: and thus, by repeated experience and practice, in drawing figures, lines, and schemes, for this purpose, they gradually formed an art which, from its origin, in measuring of lands, the Greeks at last named γεωμετρια, geometry. By farther contemplation on the draughts of figures, their

wonderful properties were more and more discovered, and the art continually gained ground and improved, by the discoveries of succeeding mathematicians.

This appears to be the most probable origin of this science; though Josephus seems to ascribe the invention to the Hebrews; while others of the ancients make Mercury the inventor. Polyd. Virg. de Inv. Rer. l. 1, c. 18.

Thales is said to have introduced this science from Egypt into Greece; where it was greatly cultivated and improved by himself, as well as by Pythagoras, Anaxagoras of Clazomenæ, Hippocrates of Chios, and Plato; who testified his conviction of the necessity and importance of geometry to the successful study of philosophy, by inscribing over the door of his academy, Let no one ignorant of geometry enter here. Plato thought the word geometry too mean a name for this science; and substituted instead of it the more extensive name of mensuration; and after him others gave it the title of pantometry. But even these are now become too confined in their import fully to comprehend its extent: for it not only enquires into, and demonstrates, the quantities of magnitudes, but also their qualities, as the species, figures, ratios, positions, transformations, descriptions, divisions, the finding of their centres, diameters, tangents, asymptotes, curvatures, &c.

About fifty years after Plato, Euclid collected together all these theorems, which had been invented by his predecessors in Egypt and Greece, and digested them into fifteen books, entitled the Elements of Geometry: demonstrating and arranging the whole in a very accurate and perfect manner.

The next to Euclid, of those ancient authors whose works are extant, is Apollonius Pergæus, who flourished in the reign of Ptolemy Euergetes, about A. A. C. 230, and 100 years after Euclid. He was author of the first and principal work on Conic Sections; on account of which, and his other accurate and ingenious geometrical works, he acquired from his patron the emphatic appellation of the Great Geometrician.

Contemporary with Apollonius, or perhaps a few years before him, flourished Archimedes, celebrated for his extraordinary mechanical inventions during the siege of Syracuse, and no less so for his many ingenious geometrical compositions. Eudoxus of Cnidus, Archytas of Tarentum, Philolaus, Eratosthenes, Aristarchus of Samos, Dinostratus the inventor of the quadratrix, Menechmus his brother and the disciple of Plato, the two Aristæuses, Conon, Thracidius, Nicoteles, Leon, Theudius, Hermotimus, Hero, and Nicomedes, the inventor of the conchoid, besides many other ancient geometricians, have contributed to the improvement of geometry.

The Greeks continued their attention to it, even after they were subdued by the Romans; whereas the Romans themselves were so little acquainted with it, even in the most flourishing time of their republic, that Tacitus informs us they gave the name of mathematicians to those who pursued the chimeras of divination and judicial astrology. Nor does it appear they were disposed to cultivate geometry during the decline, and after the fall of the Roman empire. But the case was different with the Greeks; among whom are found many excellent geometricians since the commencement of the Christian era, and after the translation of the Roman empire. Ptolemy lived under Marcus Aurelius; and we have still extant the works of Pappus of Alexandria, who lived in the time of Theodosius; the commentary of Eutocius, the Ascalonite, who lived about A. D. 540, on Archimedes's mensuration of the circle; and the commentary on Euclid by Proclus, who lived under the empire of Anastasius.

The subsequent inundation of ignorance and barbarism was unfavorable to geometry, as well as to the other sciences; and the few who applied themselves to this science were calumniated as magicians. But, in those times of European darkness, the Arabians were distinguished as the guardians and promoters of science; and from the ninth to the fourteenth century they produced many astronomers, geometricians, geographers, &c.; from whom the mathematical sciences were again received into Spain, Italy and the rest of Europe, somewhat before the year 1400.

Some of the earliest writers, after this period, are Leonardus Pisanus, Lucas Pacciolus or de Burgo, and others between 1400 and 1500. And after this appeared many editions of Euclid, or commentaries upon him: thus Orontius Finæus, in 1520, published a commentary on the first six books; as did James Peletarius in 1556; and about the same time Nicholas Tartaglia published a commentary on the whole fifteen books. There have been also various other editions, or commentaries; but the completest edition of all the works of Euclid is that of Dr. Gregory, printed at Oxford in 1703, in Greek and Latin. The edition of Euclid by Dr. Robert Simpson, of Glasgow, containing the first six books, with the eleventh and twelfth, is much esteemed for its correctness; and Playfair's edition of the first six books, with two additional ones on solids, the intersection of planes, and the quadrature of the circle, is remarkable for the precision and taste which distinguished every thing that came from the pen of that accomplished philosopher.

Besides the different editions of Euclid, we have several other elementary treatises on geometry; the principal of which are those by Emerson, Simpson, Legendre and Leslie. All these are works of considerable merit and usefulness. Emerson's is quite a store-house of properties; Simpson's is distinguished by an elegant tract on geometrical maxima and minima, and by a copious collection of geometrical problems, with their solutions, exceedingly well adapted to improve the dexterity and to form the taste of the young student. Leslie's work contains the best introduction to geometrical analysis that is to be met with in the English language. Legendre's work, which has been recently translated into English, is, in many respects, exceedingly valuable; but there appears little reason to expect that it will supplant, in the English schools, the elements of Euclid, which, after all that has been done on the subject, is, for the purposes of tuition, still unrivalled.

Among those who have gone beyond Euclid, in the application of the elementary principles of geometry, may be named Apollonius, in his Conics, Plane Loci, Determinate Section, Tangencies, &c.; Archimedes, in his Treatises on the Sphere and Cylinder, the Dimensions of the Circle, of Conoids, Spheroids, Spirals, the Quadrature of the Parabola, &c.

Since the application of algebra to the geometry of curve-lines, this science has been greatly extended, and we may number, among those who have contributed to its improvement, almost every name of eminence connected with abstract science. The names of Descartes, Schooten, Leibnitz, Bernouilli, Maclaurin, Cotes, and Waring, are intimately associated with the history of this branch of the science. The most valuable work, however, on the algebraic geometry, is one recently published by Dr. Lardner, of Dublin.

On the subject of practical geometry, the writers may truly be said to be numberless; the chief are Beyer, Kepler, Ramus, Clavius, Mallet, Tacquet, Ozœnam, Gregory, and Hulton.

On the whole, the history of geometry may be divided into four grand eras, viz. 1st, From its invention to its introduction into Greece by Thales; 2d, From that period to the time of Euclid; 3d, From Euclid and Archimedes to the application of algebra to the subject by Descartes; and 4th, From Descartes to Newton and to the present time, a period in which the invention of fluxions, and their application to this and other branches of science, has cast all previous discoveries into shade.

This science is usually divided into two parts, theoretical geometry, and practical geometry, the former showing the principles of the science, and the latter their application. For their application, however, to MENSURATION, TRIGONOMETRY, and NAVIGATION, we shall refer to the articles under those titles; and give in this article their application in the solution of practical problems in pure geometry.

PART I.

THEORETICAL GEOMETRY; OR GENERAL PRINCIPLES OF THE SCIENCE.

DEFINITIONS.

1. A POINT is that which has position but not magnitude.

2. A LINE is length without breadth or thickness; the extremities of a line are therefore points.

3. A RIGHT LINE, or STRAIGHT LINE, is that which lies evenly between its extreme points. Fig. 1, Plate X.

4. A SUPERFICIES is that which has only length and breadth; the extremities of a superficies are therefore lines, and the intersections of superficies with one another are also lines.

5. A PLANE SUPERFICIES is that in which any two points being taken, the straight line between them lies wholly in that superficies.

6. A PLANE RECTILINEAL ANGLE is the inclination of two straight lines to one another, which meet together, but are not in the same straight line. Fig. 2.

Note. When several angles are formed at the same point, as at B fig. 3, each particular angle is described by three letters, whereof the middle one shows the angular point, and the other two the lines that form the angle, thus C B D or D B C denotes the angle contained by the line C B and D B.

7. When a straight line standing on another straight line makes the adjacent angles equal to one another, each of the angles is called a RIGHT ANGLE, and the straight line which stands on the other is called a PERPENDICULAR. Fig. 4.

8. An OBTUSE ANGLE is that which is greater than a right angle. Fig. 5.

9. An ACUTE ANGLE is that which is less than a right angle. Fig. 6.

10. PARALLEL STRAIGHT LINES are such as are in the same plane, and which being produced ever so far both ways do not meet. Fig. 7.

11. A FIGURE is that which is enclosed by one or more boundaries.

12. RECTILINEAL FIGURES are those which are contained by straight lines.

13. Every plane figure bounded by three straight lines is called a TRIANGLE, of which the three straight lines are called the sides, that side upon which the triangle is conceived to stand is called the base, and the opposite angular point the vertex.

14. An EQUILATERAL TRIANGLE is that which has three equal sides. Fig. 8.

15. An ISOSCELES TRIANGLE is that which has only two equal sides. Fig. 9

16. A SCALENE TRIANGLE is that which has all its sides unequal. Fig. 11.

17. A RIGHT-ANGLED TRIANGLE is that which has a right angle. Fig. 10.

18. An OBTUSE-ANGLED TRIANGLE is that which has an obtuse angle. Fig. 11.

19. An ACUTE-ANGLED TRIANGLE is that which has all its angles acute. Fig. 12.

20. Every plane figure bounded by four straight lines is called a QUADRILATERAL, and the right line joining the opposite angles is called a DIAGONAL.

21. A PARALLELOGRAM is a quadrilateral of which the opposite sides are parallel. Fig. 13.

22. A RECTANGLE is a parallelogram which has one right angle. Fig. 14.

23. A SQUARE is a rectangle which has all its sides equal. Fig. 15.

24. A RHOMBUS is a parallelogram which has all its sides equal. Fig. 17.

25. A TRAPEZIUM is a quadrilateral which has not its opposite sides parallel. Fig. 18.

26. A TRAPEZOID is a quadrilateral which has two of its opposite sides parallel Fig. 19.

27. Plane figures bounded by more than four straight lines are called POLYGONS. Fig. 16.

28. A PENTAGON is a polygon of five sides, a HEXAGON has six sides, a HEPTAGON seven, an OCTAGON eight, a NONAGON nine, a DECAGON ten, an UNDECAGON eleven, and a DODECAGON twelve sides.

29. A REGULAR POLYGON has all its sides and all its angles equal; if they are not equal, the polygon is IRREGULAR.

30. A CIRCLE is a plane figure bounded by one

line called the circumference, which is such, that all straight lines drawn to it from a certain point within it called the centre are equal; and these straight lines are called the radii of the circle. The circumference itself is also often called a circle. Fig. 20.

31. The DIAMETER of a circle is a straight line passing through the centre, and terminated both ways by the circumference.

32. An ARC of a circle is any part of its circumference. Fig. 21.

33. A CHORD is a straight line joining the extremities of an arc. Fig. 21.

34. A SEGMENT is any part of a circle bounded by an arc and its chord. Fig. 21.

35. A SEMICIRCLE is half the circle, or a segment cut off by a diameter. The half circumference is also sometimes called a semicircle. Fig. 20.

36. A SECTOR is any part of a circle which is bounded by an arc and two radii drawn to its circumference. Fig. 22.

37. A QUADRANT, or quarter of a circle, is a sector having a quarter of a circle for its arc, and its two radii perpendicular to each other. A quarter of the circumference is also called a quadrant. Fig. 23.

38. The HEIGHT, or ALTITUDE, of a figure is a perpendicular let fall from an angle or its vertex to the opposite side or base. Fig. 24.

39. In a right-angled triangle the side opposite the right angle is called the HYPOTHENUSE, and the other two sides are called the LEGS, or sometimes the base and perpendicular. Fig. 10.

40. The circumference of every circle is supposed to be divided into 360 equal parts, called DEGREES, and each degree into sixty MINUTES, each minute into sixty SECONDS, and so on. Hence a semicircle contains 180 degrees, and a quadrant ninety degrees.

41. The MEASURE OF A RECTILINEAL ANGLE is an arc of any circle contained between the two lines which form that angle, the angular point being the centre, and it is estimated by the number of degrees in that arc. Fig. 25.

42. IDENTICAL FIGURES are such as have all the sides and all the angles of the one, respectively equal to all the sides and all the angles of the other, each to each, so that if the one figure were applied to, or laid upon the other, all the sides of the one would exactly fall upon and cover all the sides of the other, the two becoming, as it were, but one and the same figure.

43. The DISTANCE OF A POINT FROM A LINE is the straight line drawn from that point perpendicular to, and terminating in that line.

44. AN ANGLE IN A SEGMENT OF A CIRCLE is that which is contained by two lines drawn from any point in the arc of the segment to the extremities of that arc. Fig. 26.

45. AN ANGLE ON A SEGMENT, OR AN ARC, is that which is contained by two lines drawn from any point in the opposite, or supplemental part of the circumference, to the extremities of the arc, and containing the arc between them. Fig. 26.

46. AN ANGLE AT THE CIRCUMFERENCE is that whose angular point is any where in the circumference; and an angle at the centre is that whose angular point is at the centre. Fig. 26.

47. A TANGENT TO A CIRCLE is a straight line that meets the circle at one point, and every where else falls without it. Fig. 27.

48. A SECANT is a straight line that cuts the circle; lying partly within and partly without it. Fig. 27.

49. A RIGHT-LINED FIGURE is inscribed in a circle; or the circle circumscribes it, when all the angular points of the figure are in the circumference of the circle. Fig. 28.

50. A RIGHT-LINED FIGURE circumscribes a circle; or the circle is inscribed in it, when all the sides of the figure touch the circumference of the circle. Fig. 28.

51. ONE RIGHT-LINED FIGURE is inscribed in another; or the latter circumscribes the former, when all the angular points of the former are placed in the sides of the latter. Fig. 28.

52. SIMILAR FIGURES are those that have all the angles of the one equal to all the angles of the other, each to each, and the sides about these angles proportional.

53. The PERIMETER OF A FIGURE is the sum of all its sides taken together.

Note. When the word line occurs, without the addition of either straight or curved, a straight line is always meant.

AXIOMS.

1. Things which are equal to the same thing are equal to one another.
2. When equals are added to equals, the wholes are equal.
3. When equals are taken from equals, the remainders are equal.
4. When equals are added to unequals, the wholes are unequal.
5. When equals are taken from unequals, the remainders are unequal.
6. Things which are like multiples of the same thing are equal to one another.
7. Things which are like parts of the same thing are equal.
8. The whole is equal to all its parts taken together.
9. Things which coincide, or fill the same space, are identical, or mutually equal in their parts.
10. All right angles are equal to one another.
11. A line which meets one of two parallel lines will if produced meet the other.
12. If two straight lines intersect each other, they cannot both be parallel to the same straight line.

PROPERTIES OF STRAIGHT LINES, AND PLANE RECTILINEAL FIGURES.

THEOREM I.—In any two triangles, as A B C, D E F (fig. 30 p. I), if two sides, as A B, A C, in the one, be respectively equal to two sides, as D E, D F, in the other, and the angle A, included by the sides A B, A C, be equal to the angle D, included by the sides D E, D F; then the triangles are equal in all respects, and have the angles equal which are opposite the equal sides.

For, conceive the point A to be laid on the point D, and the line A B on the line D E, then, as these lines are equal, the point B will fall on the point E. And as A B coincides with D E

and the angle A is equal to the angle D, the side A C will fall on the side D F; and, these sides being equal, the point C will fall on the point F; and, consequently, the line B C will coincide with the line E F. Hence, the two triangles are identical, having all the parts in the one equal to the corresponding parts in the other, viz. the side B C to the side E F, the angle B to the angle E, the angle C to the angle F, and the whole triangle A B C to the triangle D E F.

Theorem II.—If two triangles, as A B C, D E F (fig. 30, p. I.), have two angles as B and C in the one, respectively equal to two angles, as E and F in the other, and the sides B C, and E F, adjacent to these angles also equal, the triangles are equal in all respects, and have those sides equal which are opposite the equal angles.

For, conceive the point B to be laid on the point E, and the line B C on the line E F, then, because these lines are equal, the point C will fall on the point F. And, as B C coincides with E F, and the angle B is equal to the angle E, the side B A will fall on the side C D; and, for a like reason, A C will fall on D F, and the points A and D will consequently coincide; the triangles are, therefore, identical, having the parts in one respectively equal to the corresponding parts in the other.

Theorem III.—In any isosceles triangle, as A B C (fig. 31, p. I), the angles B and C, opposite the equal sides A B and A C, are equal.

For, conceive the angle B A C to be bisected by the line A D, then, as the two triangles A B D, A C D, have A C equal to A B, A D, common, and the angles B A D and D A C equal, they are identical (Theorem I.), and have therefore the angles B and C equal.

Cor. 1. The line which bisects the angle included between the equal sides of an isosceles triangle, bisects the third side also, and is perpendicular to it.

Cor. 2. An equilateral triangle is also an equiangular one.

Theorem IV.—If a triangle, as A B C (fig. 32, p. I.), have two equal angles, as A and B, the sides A C and B C, opposite those angles, are also equal.

For, if A C and B C are not equal, suppose one of them, as A C, to be longer than the other, and conceive A D to be the part of A C which is equal to B C, and join B D. Then, as A D is equal to B C, A B common to both, and the angles C A B and C B A equal, the triangles A B D and A B C are themselves equal (Theorem I.), the less equal to the greater which is impossible. AC and B C are, therefore, not unequal, that is, they are equal.

Cor. An equiangular triangle is also an equilateral one.

Theorem V.—If two triangles, as A B C, D E F (fig. 33 p. I.), have the sides A C and D F, A B and D E, and B C and E F, respectively equal, the triangles are identical, and have the angles equal, which are opposite the equal sides.

For let the point A be laid on D, and the line A B on the line D E; then, as these lines are equal, the points B and E will coincide. Let the point C fall at G, and join F G. Then, as D F and D G are equal, the angles D F G and D G F are equal (Theorem III.); and in the same way may the angles E F G and E G F be shown to be equal. Hence the angles D F E, and D G E, or A C B, are equal; and, consequently (Theorem I.), the triangles A B C, and D E F, are identical, and have the angles B A C, and E D F, equal, and the angles B A C, and E D F, also equal.

Theorem VI.—The angles D B A, D B C (fig. 34, p. I.), which one straight line, D B, makes with another, A C, on the same side of it, are either two right angles, or, together, they are equal to two right angles.

For, if B D is perpendicular to A C, each of the angles A B D and D B C is a right angle. If B D is not perpendicular to A C, let B E be perpendicular to A; then A B D exceeds the right angle A B E by the right angle E B D, and D B C is less than the right angle E B C by the same angle E B D; the angles A B D and D B C are, together, equal to two right angles.

Cor. All the angles that can be made at a point, as B, by any number of lines drawn on the same side of a line, as A C, are, together, equal to two right angles; and, as all the angles that can be made at the same point by lines drawn on the other side of A C are also together equal to two right angles, we may infer that all the angles that can be made in the same plane about any point, are, together, equal to two right angles.

Theorem VII.—If two straight lines, as A B, D E (fig. 35 p. I.), intersect each other, any two vertical or opposite angles, as A C D, B C E, are equal.

For, as A C meets D E, the angles A C D and A C E are, together, equal to two right angles (Theorem VI.); and, as E C meets A D, the angles A C E and E C B are also, together, equal to two right angles. Hence the sum of the angles A C D and A C E is equal to the sum of the angles A C E and E C B, and, if the common angle A C E be omitted from each sum, the remaining angles, A C D and E C B, are equal.

Theorem VIII.—If any side, as A B (fig. 36, p. I.), be produced, as to D, the outward angle C B D is greater than either of the inward and opposite angles A and C.

For bisect B C in E, join A E, and produce it till E F is equal to A E, and join B F. Then as A E is equal to E F, B E to E C, and the angles A E C and B E F are also equal (Theorem VII.), the triangles A E C and B E F are identical (Theorem I.), and the angle E B F is equal to the angle A C E; consequently the whole angle C B D is greater than the angle C.

By producing C B as to C, it may be shown in the same way that the angle A B G, which is equal to C B D is greater than B A C.

Theorem IX.—In any triangle, as A B C (fig. 37, p. I.), if a side A B be greater than another side A C, the angle A C B, opposite the greater side A B, is greater than the angle A B C, opposite the less side A C.

For let A D be the part of A B which is equal to A C, and join C D. Then the angles A C D and A D C are equal (Theorem III.); but the

angle A D C is greater than the angle B (Theorem VIII.); therefore the angle A C D is also greater than B, and consequently the angle A C B is much greater than B.

THEOREM X.—In any triangle, as A B C (fig. 37, p. I.), the greater angle, as C, has the side A B opposite to it, greater than the side A C, opposite the less angle B.

For, if A B were equal to A C, the angles B and C would be equal (Theorem III.); and, if A B were less than A C, the angle C would be less than the angle B, both of which conclusions are inconsistent with the hypothesis that the angle C is greater than the angle B; hence the side A B must be greater than the side A C.

THEOREM XI.—If two triangles, as A B C, D E F (fig. 38 p. I.), have two sides A B, B C, of the one, respectively equal to two sides D E, E F, of the other, but the angle A B C greater than the angle D E F; then the side A C will be greater than the side D F.

Let A B G be the part of the angle A B C which is equal to D E F, and let B G be equal to E F or E C. Then (Theorem I.) the triangles A B G and D E F are identical, and have the sides A G and D F equal. And, as B G and B C are equal, the angles B G C and B C G are equal; hence B G C is greater than A C G, and much more is A G C greater than A C G; hence (Theorem X.) A C is greater than A G, or than its equal D F.

THEOREM XII.—If two triangles, as A B C, D E F (fig. 38, p. I.), have two sides A B, B C, of the one respectively equal to D E, E F, two sides of the other; but the third side A C of the one greater than the third side D F of the other, the angle A B C will be greater than the angle D E F.

For, if A B C and D E F were equal, A C and D F would be equal (Theorem I.), which, by hypothesis, they are not; and, if A B C were less than D E F, A C would be less than D F (Theorem XI.), which it is not. Hence, as A B C is neither equal to nor less than D E F, it must be greater.

THEOREM XIII.—In any triangle, as A B C, (fig. 39, p. I.), the sum of any two of its sides, as A C and C B, is greater than the third side A B.

Produce A C till C D is equal to C B, and join D B; then (Theorem III.) the angles D and D B C are equal, therefore the angle A B D is greater than the angle D, and hence (Theorem X.) A D, or the sum of A C and C B, is greater han A B.

THEOREM XIV.—In any triangle, as A B C (fig. 39, p. I.), the difference of any two of its sides, as A C and A B, is less than the third side B C.

For let A E be the part of A B the greater, which is equal to A C the less; then, as A C and C B (Theorem XIII.) are together greater than A E and E B; if the equal parts, A C and A E, be taken from each, E B, the difference of A C and A B, will remain less than C B.

THEOREM XV.—If a line, E F (fig. 40, p. I.), intersect two parallel lines, A B and C D, the alternate angles B E F, C F E will be equal to each other.

If they are unequal, suppose B E F to be the greater, and that D E F is the part of it which is equal to C F E. Then, as A B is parallel to C D, E D is not parallel to C D, it will, therefore, meet it in some point, as D; and in the triangle, E F D, the outward angle E F C, is greater than the angle D E F (Theorem VIII.), which was supposed equal to it, which is impossible. The angles C F E, and B E F, are therefore equal.

THEOREM XVI.—If the alternate angles B E F and C F E (fig. 40, p. I.) are equal, A B and C D are parallel.

For, if A B is not parallel to C D, let E D drawn from E be parallel to it. Then the angle C F E equal to the alternate angle F E D (Theorem XV.), and also by hypothesis equal to the F E B, the angles F E D and F E B must be equal, which is impossible. Hence no line drawn through, except E B, can be parallel to C D.

THEOREM XVII.—If A B, C D (fig. 40, p. I.), two parallel lines, be cut by another line E F, any outward angle, as A E G, is equal to the inward and opposite one C F E on the same side of E H, and any two inward angles, as A E F and E F C, are together equal to two right angles.

For the angle B E F being equal to the angle A E G (Theorem VII.), and also equal to the angle C F E (Theorem XV.), the angles A E G and C F E are equal. And as the angles A E F and B E F, together, are equal to two right angles (Theorem VI.), and the angle B E F is equal to the angle C F E, the angles A E F and C F E are together equal to two right angles.

THEOREM XVIII.—If two lines, as A B, E F (fig. 41 p. I), be each parallel to another line as C D, A B and E F are parallel to each other.

Let the lines be cut by the line G H I K L; then as the angle H I C is equal to B H I (Theorem XV.), and also equal to I K E (Theorem XVII.), the angles B H I and I K E are equal, and consequently (Theorem XVI.) the lines A B and E F are parallel.

THEOREM XIX.—If any side, as A B (fig. 42, p. I.) of a triangle A B C be produced, the outward angle C B D, is equal to both the inward and opposite angles A and C.

Let B E be a line parallel to A C: then (Theorem XV.) the angles A C B and C B E are equal; and (Theorem XVII.) the angles C A B and E B D are equal; hence the angle C B D is equal to the sum of the angles A and C.

Cor. 1. As the angles C B D and C B A are together equal to two right angles (Theorem VI.) and the angle C B D is equal to the sum of the angles A and C, the three interior angles of any triangle are equal to two right angles.

Cor. 2. Either of the angles C or A is the difference between the other and the outward angle C B E.

THEOREM XX.—All the interior angles of any rectilineal figure, A B C D E (fig. 43, p. I.), are together equal to twice as many right angles as the figure has sides wanting four right angles.

For from any point, as F, within the figure, let lines be drawn to its angular points, dividing the figure into as many triangles as it has sides; then the interior angles of each triangle being equal to two right angles, the interior angles of all the triangles (which are the interior angles of the figure, and the angles about the point F, or the interior angles of the figure and four right angles), are equal to twice as

many right angles as the figure has sides. Hence the interior angles of the figure are equal to twice as many right angles as the figure has sides wanting four right angles.

Cor. 1. All the interior angles of a quadrilateral figure are together equal to four right angles.

Cor. 2. If the sides of the figure be produced the sum of the outward angles will be four right angles.—For, each interior with its corresponding exterior angle being equal to two right angles (Theorem VI.), all the interior and exterior angles will be equal to twice as many right angles as the figure has sides, or equal to the interior angles and four right angles; therefore the exterior angles are equal to four right angles.

THEOREM XXI.—In any parallelogram, as A B C D (fig. 44, p. I.), the opposite sides are equal to each other, and so are also the opposite angles, and the diagonal B D divides it into two equal triangles.

For A B and C D being parallel, and A D and C B also parallel, the angle A B D is equal to the angle C D B and the angle A D B to the angle C B D (Theorem XV.); and, as D B is common to both triangles, the triangles are (Theorem II.) identical, having A B equal to C D, A D to B C, and the angle A to the angle C, and as the two parts of the angle A D C are equal to the two parts of the angle A B C, the angles A D C and A B C are also equal.

Cor. If a parallelogram have one right angle, all its angles are right angles, and consequently all the angles of a rectangle are right angles.

THEOREM XXII.—Any quadrilateral, as A B C D (fig. 44, p. I.), whose opposite sides are respectively equal is a parallelogram.

For, D B being joined, the triangles A B D and C D B are (Theorem V.) identical, having the angles C D B and A B D equal, and the angles A D B and C B D equal. Hence (Theorem XVI.) A B and C D are parallel, and A D and B C are parallel; and consequently (Def. XXI.) the figure A B C D is a parallelogram.

Cor. Hence a square is a parallelogram.

THEOREM XXIII.—The lines A C and B D (fig. 44, p. I.) which join the corresponding extremities of equal and parallel lines, as A B and C D, are themselves equal and parallel.

For, B C being joined, the angles A B C and D C B are equal (Theorem XV.) and consequently (Theorem I.) the triangles A B C and D C B are identical, and have A C equal to B D, and the angles A C B and D B C equal, when A C and B D are parallel (Theorem XVI.).

THEOREM XXIV.—If two parallelograms, as A B C D, A B E F (fig. 45, p. I.), be on the same base A B, and between the same parallels A B, and F C, those parallelograms are equal to each other.

For, (Theorem XXI.) F E and D C are each equal to A B, they are therefore equal to each other, and if E D be added to each, F D and E C will be equal; and as A F is equal to B E, and A D to B C, the triangles A D F, and B C E, are equal (Theorem V). If therefore each of these equal triangles be taken from the whole figure A B C F, the remainders, or the parallelograms A B E F and A B C D are equal.

Cor. If the diagonals A E and D B be drawn, the triangles A E B and A D B, halves of equal parallelograms, are equal.

THEOREM XXV.—Parallelograms, as A B C D, E F G H (fig. 46, p. I.), on equal bases A B and E F, and between the same parallels A F and D G, are equal to each other. For H G being equal and parallel to E F (Theorem XXI.) is equal and parallel to A B, hence (Theorem XXIII.) A H is equal and parallel to B G, therefore A H G B is a parallelogram; and each of the parallelograms A C and E G being equal to the parallelogram A G, they are equal to each other.

Cor. 1. If B D and E G be joined, the triangles A B D and E F G, the halves of the equal parallelograms A C and E G are equal.

Cor. 2. If a parallelogram and a triangle be on the same or on equal bases, and between the same parallels, the parallelogram will be double the triangle.

THEOREM XXVI.—Equal triangles, as A B C, A D B (fig. 47, p. I.) on the same base A B, are between the same parallels.

For if D C is not parallel to A B, let D E meeting A C in E be parallel to A B, and join B E. Then the triangles A B D and A B E are equal (Cor. Theorem XXIV.); and the triangles A B D and A B C are equal, by hypothesis; hence the triangles A B C and A B E are equal, the less to the greater, which is impossible. No line therefore, drawn through D, except D C, can be parallel to A B, and D C and A B are therefore parallel.

THEOREM XXVII.—If A B (fig. 48, p. I.) be a line, and B C another divided into any number of parts, as B D, D E, E C, the rectangle contained by A B and B C is equal to the rectangles contained by A B and B D, A B and D E, and A B and E C.

For let A C be the rectangle contained by A B and B C, and let D F and E G be drawn parallel to A B; then the rectangle A C is the sum of the rectangles A D, F E, and E C. Now A D is contained by A B and B D, F E by F D and D E, and G C by G E and E C; and, as D E and E G are each equal to A B, their rectangles are equal to rectangles contained by A B and B D, A B and D E, and A B and E C.

Cor. 1. If A B be equal to B D, A D will be a square on B D, and D H will be a rectangle under B D and D C; therefore the rectangle under a line, and a part of itself, is equal to the square of that part, and the rectangle of the two parts.

Cor. 2. If B A be equal to B C, B H will be a square on B C; hence the rectangles under a line, and the several parts of itself, are equal to the square of that line.

THEOREM XXVIII.—The square of the sum of two lines, as A F and F B (fig. 49, p. I.), is equal to the square of each line, and twice the rectangle contained by these lines.

Let A C be the square on A B, and F I the square on F B, and produce F G and I G till they meet D C and A D in E and H; then H I and E F are equal, being equal to A B and B C, sides of the same square; if from these equals, the equal parts G I and F G be taken, the re-

maining parts GE and GH will be equal. But HG is equal to DE, and GE to HD, and the angle D being a right angle, HE is a square on HG, or it is equal to the square of AB. But the parallelograms AC and GC are rectangles, each equal to the rectangle contained by AF and FB; for FG and GI are each equal to FB, and IC is equal to AF. Hence the square of AB, or the square of the sum of AF and FB, is equal to the squares of AF and FB, and twice the rectangle of AF and FB.

Cor. The square of any line is four times the square of half that line.

THEOREM XXIX.—The square of AC, the difference of two lines AB and BC (fig. 50, p. I.), is equal to the sum of the squares of those lines, all but twice the rectangle contained by them.

For let AD be the square on the difference AC, AF the square on the greater AB, and CI the square on the less BC; and produce ED to meet FC in H. Then GH and HK are the excess of the two squares AF and CI above the square AD. Now as AB is equal to AG, and AC to AE, EG is equal to BC; and, AB being equal to GF, GH is equal to a rectangle under AB and BC. Again, as AC is equal to CD, and CB to CK, AB is equal to DK; and, CB being equal to KI, HK is equal to a rectangle under AB and BC; hence the square of the difference of AB and BC is equal to the square of each of those lines, diminished by twice their rectangle.

THEOREM XXX.—The difference of the squares of any two unequal lines, as AB, AC (fig. 51, p. I.), is equal to a rectangle under their sum and difference.

For let AD be the square on AB, and AF the square on AC; produce BD till BK is equal to AC; draw IK parallel to AB, and produce FC till it meet IK, and ED in I and H. Then the rectangles EF and CD together form the difference of the two squares AD and AF. But the rectangles EF and BI are equal; for GF and BK are each equal to AC, and GE is equal to BC, as they are each equal to the difference of AB and AC, or of their equals AE and AG. The rectangles EF and CD are therefore together equal to the rectangles BI and CD, or to the whole rectangle DI, which is therefore equal to the difference of the squares AD and AF. But DI is a rectangle contained under DK the sum, and BC the difference of AB and AC; hence the difference of the squares of AB and AC is equal to the rectangle under their sum and difference.

THEOREM XXXI.—If two parallelograms AG, CE (fig. 52, p. II.), be described on AB, BC, two sides of a triangle ABC, and the outward sides FG, DE; if the parallelograms be produced till they meet in H; and if HB be joined, and produced to meet the base AC in K; and AL, CM be drawn parallel to HK, meeting FH and HD in L and M; then, if LM be joined, AM will be a parallelogram, and equal to the parallelograms AG and CE.

For, as AH and HC are parallelograms, AL and CM are, each equal and parallel to BH (Theorem XXI.), they are equal and parallel to each other (Theorem XXIII.), therefore AC and LM are also equal and parallel, and hence AM is a parallelogram.

Now (Theorem XXIV.) the parallelograms AG and AH are equal, for they are on the same base AB, and between the same parallels AB and CH. But the parallelogram AH is equal to the parallelogram AN, for they are on the same base AL, and between the same parallels AL and KH; hence the parallelograms AG and AN, being each equal to AH, are equal to each other. Similarly the parallelograms CE and CN may be shown to be equal; and consequently the two parallelograms AG and CE are equal to the whole parallelogram AM.

Cor. If the parallelograms AG and CE be squares, and the angle ABC a right angle, then the parallelogram AM will also be a square, and equal to the two squares AG and CE.

THEOREM XXXII.—In any triangle as ABC (fig. 53, p. II.), obtuse angled at A, if a perpendicular CD be drawn from C on the base produced, then $BC^2 = BA^2 + AC^2 + 2BA.$

For (Theorem XXXI., Cor.) $BC^2 = BD^2 + DC^2$; but (Theorem XXVIII.) $BD^2 = BA^2 + AD^2 + 2BA \cdot AD$; therefore $BC^2 = BA^2 + AD^2 + DC^2 + 2BA \cdot AD$. But (Theorem XXXI. Cor.) $AD^2 + DC^2 = AC^2$, hence $BC^2 = BA^2 + AC^2 + 2BA \cdot AD$.

THEOREM XXXIII.—In any triangle, as ABC (fig. 54, p. II.), if CD be a perpendicular, drawn from C on the opposite side AB, then $BC^2 = BA^2 + AC^2 - 2BA \cdot AD$.

For (Theorem XXXI. Cor.), $AC^2 = AD^2 + DC^2$, and (Theorem XXVIII.) $AB^2 = AD^2 + DB^2 + 2BD \cdot AD$; hence $AB^2 + AC^2 = BD^2 + DC^2 + 2AD^2 + 2BD.AD$. But (Theorem XXXI. Cor.) $BD^2 + DC^2 = BC^2$, and (Theorem XXVII. Cor. 1,) $2AD^2 + 2BD.AD = 2BA \cdot AD$; therefore $AB^2 + AC^2 = BC^2 + 2BA \cdot AD$, or $BC^2 = AB^2 + AC^2 - 2BA \cdot AD$.

THEOREM XXXIV.—In any triangle as ABC (figs. 53 & 54, p. II.) the rectangle under the sum and difference of two sides, as BC and AC is equal to the rectangle of the segments, AD and BD, of the third side, made by a perpendicular from the angle C.

For $BC^2 = BD^2 + DC^2$, and $AC^2 = AD^2 + DC^2$, (Theorem XXXI. Cor.); hence $BC^2 - AC^2 (BD^2 + DC^2) - (AD^2 + DC^2) = BD^2 - AD^2$. But (Theorem XXX), $BC^2 - AC^2 = \overline{BC + AC} \cdot \overline{BC - AC}$; and $BD^2 - AD^2 = \overline{BD + AD} \cdot \overline{BD - AD}$; therefore $\overline{BC + AC} \cdot \overline{BC - AC} = \overline{BD + AD} \cdot \overline{BD - AD}$.

THEOREM XXXV.—If the base AB of a triangle, as ABC (fig. 55, p. II.), be bisected in D, then $AC^2 + BC^2 = 2AD^2 + 2DC^2$.

For let CE be a perpendicular from C on AB; then (Theorem XXXII.) $AC^2 = AD^2 + DC^2 2AD \cdot DE$; and (Theorem XXXIII.) $BC^2 = BD^2 + DC^2 - 2BD \cdot DE = AD^2 + DC^2 - 2AD \cdot DE$; hence $AC^2 + BC^2 = 2AD^2 + 2DC^2$.

PROPERTIES OF CIRCLES.

THEOREM XXXVI.—If any point D (fig. 56, p. II.), be taken in A C B, the diameter of a circle D B, that part of the diameter which passes through the centre, C, is greater than any other line, as D E, that can be drawn from D to the circumference of the circle; and D E is greater than any other line D F drawn from D to the circumference; but at a greater distance from D B.

For, join C E and C F, then as C E is equal to C B, D C and C E together are equal to D B; and, as the sum of D C and C E is greater than D E (Theorem XIII.), D B is greater than D E. Again as D C and C E are respectively equal to D C and C F, but the angle D C E is greater than the angle D C F, D E (Theorem XI.) is greater than D F.

THEOREM XXXVII.—An angle A C B (fig. 57, p. II.) at the centre of a circle is double the angle A D B at the circumference, when they both stand on the same arc A B.

For join D C, and produce it as to E; then (Theorem XIX.) the angle A C E is equal to the sum of the angles C A D, and C D A; but, as C A is equal to C D, the angles C A D and C D A are equal; the angle A C E is therefore double the angle A D C. For a like reason the angle B C E is double the angle B D C, consequently the angle A C B is double the angle A D B.

Cor. 1. As the angle A C B, at the centre, is measured by the arc A B on which it stands, the angle A D B at the circumference is measured by half the arc A B, on which it stands.

Cor. 2. All angles in the same segment of a circle, or standing on the same arc, are equal to each other.

Cor. 3. The angle in a semicircle is a right angle; for, when A C and C B become one straight line, the angle A C B becomes equal to two right angles, and the angle A D B, which is in that case an angle in a semicircle, is a right angle.

THEOREM XXXVIII.—The sum of any two opposite angles B A D, B C D, of a quadrilateral inscribed in a circle, is two right angles (fig. 58, p. II.)

For the three angles of the triangle A D B are together equal to two right angles (Theorem XIX. Cor. 1). But (Theorem XXXVII. Cor. 2), the angle A D B is equal to the angle A C B, and the angle A B D to the angle A C D, hence the angles B A D and B D C are together equal to two right angles.

Cor. If A B be produced, as to E, then (Theorem VI.) the angles D A B and D A E, together, make two right angles; hence the angle D A E is equal to the inward and opposite one B C D.

THEOREM XXXIX.—In any circle as A B C D (fig. 59, p. II.) parallel chords as A B, C D, intercept equal ones, A C and B D.

For, B C being joined, the angles A B C and B C D are equal (Theorem XV.), and hence (Theorem XXXVII. Cor. 1) half the arc A C is equal to half the arc B D, or the whole arc A C, to the arc B D.

Cor. If A B be conceived to move parallel to itself till it coincide with the tangent E G F, then the arcs C G and G D intercepted by a tangent and a chord parallel to it will appear to be equal.

THEOREM XL.—If A B (fig. 60, p. II.) be a tangent to a circle, and A C a chord drawn from the point of contact A, the angle D A C is equal to any angle in the alternate segment A D C.

For from C draw the chord D C parallel to A B, and join A D. Then, as the arcs A C and A D are equal (Theorem XXXIX. Cor.), the angles A C D and A D C are equal (Theorem XXXVII. Cor. 2). But (Theorem XV.) the angles A C D and B A C are equal; therefore the angles B A C and A C D are equal; and, as A D C is equal to any angle in the same segment, B A C is also equal to any angle in that segment.

THEOREM XLI.—The angle E A C (fig. 61, p. II.), formed by two lines cutting a circle, is measured by half the sum or half the difference of the intercepted arcs E C and B D, according as the point A is within or without the circle.

For join E B; then when A is within the circle, the angle E A C is the sum of the angles C B E and D E B; but when A is without the circle, the angle E A C is the difference of the angles C B E and D E B (Theorem XIX. Cors. 1 and 2). But (Theorem XXXI. Cor. 1) C B E is measured by half E C, and the angle D E B by half B D; hence the truth of the proposition is manifest.

THEOREM XLII.—If A B (fig. 62, p. II.), any chord of a circle, be bisected by a line C D drawn to the centre, C D will be perpendicular to A B; or if C D, drawn from the centre, be perpendicular to A B, A B will be bisected in D.

Draw the radii C A, C B, then A B is bisected in D, the triangles A C D and B C D will be identical (Theorem V.), and have the angles A D C and B D C, opposite to the equal sides A C and B C, equal to each other, and C D is therefore perpendicular to A B. Or again, if C D is perpendicular to A B, the angles C D A and C D B will be equal, and, because of the equal sides A C and C B, the angles C A D and C B D will be equal (Theorem III); hence the angles A C D and B C D will also be equal, and as C D is common to both triangles, the side A D will be equal to the side B D (Theorem II.), or A B is bisected in D.

Cor. The angles A C D and B C D are equal, therefore the arcs A E and B E are equal.

THEOREM XLIII.—If on A B, C D (fig. 63, p. II.), two chords in a circle, the perpendiculars E G and G F be drawn; then if the perpendiculars are equal, the chords are equal; and if the chords are equal, the perpendiculars are equal.

For join A G and G C, then (Theorem XLII.) the chords A B and C D are bisected in E and F, if therefore A B is equal to C D, A E is equal to C F. But (Theorem XXXI. Cor.) $AG^2 = AE^2 + EG^2$; and GC^2 (or AC^2) $= CF^2 + GF^2$. Hence $AE^2 + EG^2 = CF^2 + GF^2$; and if from these equals the equal squares AE^2 and CF^2 be taken, we have $EG^2 = GF^2$, or $EG = GF$. In the same way it may be shown that, when $EG = CF$, $AE = CF$, and consequently $AB = CD$.

THEOREM XLIV.—A perpendicular as B C (fig. 64, p. II.), at the extremity B of the radius of a circle, is a tangent to the circle.

For from the centre A draw A C to any point C in the line B C; then as A B C is a right angle, A C B is less than a right angle; hence

(Theorem X.) A C is greater than A B, or the point C is without the circle. In the same way it may be shown that B C meets the circle in the point B only, and it is therefore a tangent to the circle.

Of Proportion.

Proportion is the numerical relation which one quantity bears to another. Quantities between which proportion can exist must be of the same kind, as a line and a line, a surface and a surface, a solid and a solid, an angle and an angle.

A greater quantity is said to be a multiple of a less, when it contains the less a certain number of times without any remainder; and quantities so related are said to have the same relation to each other that unity has to the number which indicates how often the less is contained in the greater.

If a quantity, as A (fig. 66, p. II.), be contained exactly a certain number of times in another quantity B, the quantity A is said to measure the quantity B; and, if the same quantity A be contained exactly a certain number of times in another quantity C, A is also said to be a measure of C; and it is called a common measure of the quantities B and C. The quantities B and C will evidently bear the same relation to each other, that the numbers do which represent the multiple that each quantity is of the common measure A.

Again, if a quantity, D, be contained as often in another quantity, E, as A is contained in B, and as often in another quantity F, as A is contained in C, then the proportion that E has to F will be the same that B has to C, and the quantities B, C, E, and F, are said to be proportional quantities, a relation which is commonly expressed thus B : C :: E : F.

Theorem XLV.—Any two quantities as A B, C D (fig. 67, p. II.), have the same proportion that their like multiples have.

Let A B be to C D as any number (say 3) to any other number (say 4); or let A B contain three such equal parts as those of which C D contains 4; and let E f, f g, g F, be any like multiples A a, a b, and b B; and G h, h i, i k, and k H, the same multiples of C c, c d, d e, and e D; then E F is the same multiple of A B that G H is of C D; and the same that each part of the one is of the corresponding part of the other. And, as the parts of A B and C D are equal, the like multiples of those parts which constitute the parts of E F and G H are also equal. Hence E F is to G H as 3 is to 4, the same proportion that A B has to C D. In the same way may the property be proved, whatever numerical relation A B may have to C D.

Cor. Quantities of the same kind are to each other as their like parts.

Theorem XLVI.—In any four quantities A B, B C, D E, and E F (fig. 68, p. II.) of the same kind, if A B : B C :: D E : E F, then also alternately A B : D E :: B C : E F. If A B contain any number of such equal parts A a (say 4), as those of which B C contains any other number (say 3), B b, then D E also will contain four such equal parts D d as those of which E F contains three, E e. Then (Theorem XLV. Cor.) A B will be to D E as A a to D d, and B C to E F as B b to E e; or as A a to D d; hence A B : D E :: B C : E F.

Cor. If A B : B C :: D E : E F; then B C : A B : : F E : E D.

Theorem XLVII.—In any four quantities A B, B C, D E, and E F (fig. 68, p. II.), of the same kind, if A B : B C :: D E : E F; then A B : A B $\pm$ B C : : D E : D E $\pm$ E F.

For let A B : B C, or D E : E F : : m : n; then A B : A B $\pm$ B C, or D E : D E $\pm$ E F : m : $m \pm n$. In the same way it may be shown that A B $\pm$ B C : A B $\mp$ B C : : D E $\pm$ E F : D E $\mp$ E F.

Theorem XLVIII.—Triangles, as A B C, D E F (fig. 69, p. II.), between the same parallels A E, C F, or that have equal altitudes, are to each other as their bases, A B and D E.

For let A B be to D E as any number, (3, for example), to any other number, (as 4); that is, let A B contain three such equal parts, A a, a b, b B, as those of which D E contains four, D c, c e, e f, f E; and join C a, C b, F c, F e, and F f. Then the triangles C A a, C a b, C b B, F D c, F c e, &c., are all (Theorem XXV. Cor. 1) equal; therefore the triangle A B C contains three such equal parts as those of which the triangle D E F contains four. Hence the triangle A B C is to the triangle D E F as the base A B is to the base D E.

Cor. Parallelograms and rectangles between the same parallels, or that have equal altitudes, are to each other as their bases; for the parallelograms are doubles of their respective triangles.

Theorem XLIX.—If two triangles, as A B C, D E F (fig. 70, p. II.), stand on equal bases, A B, D E, the triangles are to each other as their altitudes C H, F I.

Let B P be perpendicular to A B and equal to C H; in B P take B Q equal to F I, and join A P, A Q, and C P. Then the triangle A P B is equal to the triangle A B C, and the triangle A B Q to the triangle D F E. But A B P : A B Q : : B P : B Q (Theorem XLVIII.), therefore A B C : D E F : : H C : F I.

Cor. Parallelograms and rectangles on equal bases are to each other as their altitudes.

Theorem L.—If four lines, as A, B, C, D (fig. 71, p. II.), be proportional, the rectangle under the extremes A and D will be equal to the rectangle under the means B and C.

For A · D : B · D : : A : B (Theorem XLIX. Cor.), and B · C : B · D : : C : D; consequently as A : B : : C : D, A · D : B · D : : B · C : B D; and therefore A · D and B · C are equal because they bear the same proportion to B D.

Cor. If the means are equal, the rectangle of the extremes will be equal to the square of the mean.

Theorem LI.—If of four lines, as A, B, C, D (fig. 71, p. II.), the rectangle A · D of two of them, be equal to the rectangle B · C of the other two, then the sides of those rectangles will be inversely proportional; viz. A : B : : C : D; or B : A : : D : C, or A : C : : B : D, &c.

For as A · D = B · C, A D : B D :: B C : B D; but (Theorem XLIX. Cor.) A · D : B D : : A : B, and B C : B D : : C : D; hence A : B : : C : D.

THEOREM LII.—If a line, as B E (fig. 72, p. II.), be drawn parallel to C D, one of the sides of a triangle A C D, it divides the other two sides, A C and A D, in the same proportion, or so that A B : B C : : A E : E D.

For let C E and B D be joined, then the triangle B C E and B D E are equal (Theorem XXIV. Cor.), and therefore the triangle A B E bears the same proportion to B C E that it does to B D E. But (Theorem XLVIII.) A B E : B C E : : A B : B C; and A B E : B D E : : A E : E D; hence A B : B C : : A E : E D.

Cor. A B : A B + B C, or A C : : A E : A E + E D or A D (Theorem XLVIII.); or alternately A B : A E : : A C : A D; and the triangles A B E, A C D, being equiangular or similar, we may hence infer that similar triangles have the sides about their like angles in the same proportion, the homologous sides being opposite to the equal angles.

THEOREM LIII.—If two triangles as A B C, D E F (fig. 74, p. II.), have one angle, as A, in the one, equal to an angle, as E, in the other, then if A B : B C : : D E : E F, the triangles are similar.

For, if they are not, make the angle E D G equal to the angle B A C, then the angle A G B is also equal to the angle D G E, and the triangles A B C and D E G are consequently similar. Hence A B : B C : : D E : E G (Theorem LI. Cor.); but A B : B C : : D E : E F; therefore E F and E G are equal, which is impossible. The triangle A B C and D E F are therefore similar.

THEOREM LIV.—If C D (fig. 73, p. II.), be a perpendicular from C, the right angle of a right-angled triangle A B C, on the hypothenuse A B; then A D : A C : : A C : A B; B D : B C : : B C : A B, and A D : D C : : D C : D B.

For the triangles A B C, A D C, having the common angle A, and the right angles A D C, and A C B, right angles, are similar; and for a like reason A C B, and D C B, are similar, as also are A D C and D C B. Hence (Theorem LI. Cor.) A B : A C : : A C : A D, A B : B C : : B C : B D and A D : D C : : D C : D B.

Cor. 1. A B, A D = A C², A B · B D = B C² and A D · D B = D C².

Cor. 2. A B · A D + A B · B D = A C² + B C². But (Theorem XXVII. Cor. 2), A B · A D + A B · B D = A B²; hence A B² = A C² + B C², another demonstration of the important property deduced at Theorem XXXI. Cor.

THEOREM LV.—If an angle C, of a triangle A B C (fig. 75 p. I.), be bisected by C D, meeting the base in D, then A C : C B : : A D : D B.

Let B E, parallel to C D, meet A C produced in E; then the angles D C B and C B E are equal (Theorem XV.), and the angles A C D and C E B are equal (Theorem XVII.); hence, as A C B and D C B are equal, C B E and C E B are equal, and therefore (Theorem IV.), C E is equal to C B. But (Theorem LII., Cor.), A C : C E : : A D : D B; hence A C : C B : : A D : D B.

THEOREM LVI.—If two chords, C E and D B, intersect each other in any point A, within a circle D C D E (fig. 76, p. II.), the rectangle C A · A E, of the segments of the one, is equal to the rectangle, B A · A D, the segments of the other.

For join C, B, and D, E, then (Theorem XXXVII., Cor. 2), the angles B C E, B D E, standing on the same arc B E, are equal, and the angles C B A and D E A are equal for a like reason, and the vertical angles B A C and D A E being equal, the triangles A B C and A E D are similar, and consequently (Theorem LII., Cor.), A D : A E : : A C : A B; therefore (Theorem L.), A D · A B = A E · A C.

In like manner, if, as in fig. 77, the chords C E and B D meet when produced without the circle, the rectangles A C · A E and A B · A D are equal. For the angles A B C and A E D are equal, as are also the angles A C B and A D E (Theorem XXXVIII., Cor.); and, the angle A being common to both the triangles A B C and A E D, those triangles are similar, and therefore (Theorem LII., Cor.), A C : A B : : A D : A E; whence (Theorem L.) A D · A B = A E · A C.

Cor. If A B (fig. 77, p. II.) revolve round A till the points B and D meet, then the rectangle A C · A E will be equal to the square of the tangent drawn from A; and hence all tangents drawn to the same circle from the same point are equal.

THEOREM LVII.—If in a triangle as A C B (fig. 78, p. II.) the vertical angle be bisected, as by C D, then A C · C B = A E · E B + E C².

For let C E produced meet the circumscribing circle in D, and join D B, then, as the angles A C E and D C B are equal, and the angles C A E and C D B are equal (Theorem XXXVII., Cor. 2), the angles A E C and D B C are equal; whence the triangles A C E and D C B are similar, and consequently (Theorem LII., Cor.) A C : C E : : D C : C B; whence (Theorem L.) A C · C B = C E · C D. But (Theorem XXVI. Cor.), C E · C D = C E² + C E · E D; and (Theorem LVI.) C E · E D = A E · E B; therefore A C · C B = A E E B + E C².

THEOREM LVIII.—If A B C D (fig. 79, p. II.) be a quadrilateral inscribed in a circle, the rectangle A C · B D is equal to the sum of the two rectangles A D · B C and A B · C D.

From C draw C E, making the angle D C E equal to the angle A C B; then, as the angles C D E, C A B, are equal (Theorem XXXVII., Cor. 2), the remaining angles D E C and A B C are equal, and the triangles A B C and D E C are similar; therefore A B : A C : : D E : D C (Theorem LII. Cor.); whence (Theorem L.) A B · D C = A D · D E. Again, if from the equal angles D C E and A C B, the common angle A C E be taken, the remaining angles D C A and E C B will be equal; and, as the angles D A C and E B C are equal (Theorem XXXVII., Cor. 2.), the remaining angles A D C and B E C are equal; whence the triangles A D C and B E C are similar; and therefore A D : A C : : B E : B C; or A D · B C = A C · E B. Hence A B · D C + A D · B C = A C · D E + A C · E B, or = A C · B D (Theorem XXVII.).

THEOREM LIX.—If A B C D E (fig. 80, p. II.) be an equilateral polygon inscribed in a circle whose centre is M, and F G H I K an equilateral polygon of the same number of sides in-

scribed in a circle whose centre is L, the circumference of the polygon A B C D E is to the circumference of the polygon F G H I K as the radius A M to the radius F L.

For join M and L to the angles of the polygons, then the triangles A M B, B M C, &c., being mutually identical, and the triangles F L G, G L H, &c., being also mutually identical (Theorem V.), the angles A M B, F L G, are equal, being like parts of four right angles; and therefore, as the triangles are isosceles, they are similar. Hence A M : F L :: A B : F C (Theorem LII., Cor.); or :: perimeter A B C D E A : perimeter F G H I K F (Theorem XLV.), since the perimeters are like multiples of A B and F C.

Cor. If we conceive the sides of the polygons to be equal in number, and indefinitely small, their sides will coincide with the circumferences of the circumscribing circles. Hence the circumferences of circles are to each other as their radii.

Theorem LX.—Similar triangles, as A B C, D E F (fig. 81. p. II.), are to each other as the squares of their like sides.

For let A K, D M, be squares on the like sides A B and D E, B I and E L, the diagonals of these squares, and C G, F B, perpendiculars from C and F upon A B and D E. Then as the angles C A G and F D H are equal, and the right angles A G C and D H F are also equal, the triangles A C G and D F H, as well as the triangles A B C, D F E, are similar. Hence (Theorem LII., Cor.), A C : D F :: C G : F H, and A C : D F :: A B : D E or :: A I : D L; therefore C G : F E :: A I : D I; or C G : A I :: F H : D I (Theorem XLVI.). But (Theorem XLIX.) the triangle A B C is to the triangle A B I as C G is to A I; and the triangle D E F is to the triangle D L E as F H is to D L, therefore the triangle A B C is to the triangle A B I as the triangle D F E to the triangle D L E; or the triangle A B C is to the triangle D F E as twice the triangle A B I is to twice the triangle D L E; or as A K to D M; that is as the square of A B is to the square of D E.

Theorem LXI.—All similar rectilineal figures, as A B C D E, F G H I K (fig. 81, p. II.), are to each other as the squares of their like sides.

For draw B E, B D, G K, G I; then the two figures being similar they are equiangular, and have their like sides proportional. Hence, as the angles A and F are equal, the triangles A E B and K F G are similar (Theorem LIV.); and for a like reason the triangles D B C and I C H are similar. And if from the equal angles A E D and K F I the equal angles A E B and F K G be taken, the remaining angles E D B and I K C are equal; similarly the angles E D B and K I G are equal; therefore the triangles E B D and K I G are similar. Hence the triangles A E B and F K G are to each other as AE^2 to KF^2, and E B D to K G I as $ED^2 : KI^2$, and D B C to I G H as $DC^2 : IH^2$; but the corresponding sides of the polygons, and consequently their squares, are proportional; therefore, each of the triangles that compose A B C D E is to the corresponding one in F G H I K, as the square of a side of the former is to a square of a like side of the latter, and consequently the whole polygons are to each other in the same proportion.

Cor. The areas of circles are to each other as the squares of their radii; for (fig. 80, p. II.) A B : C F :: A M : F L; or $AB^2 : CF^2 :: AM^2 : FL^2$; but the areas of the polygons are by this theorem as $AB^2 : GF^2$; and therefore also $AM^2 : FL^2$; which, when the polygons coincide with their circumscribing circles, is the proportion that those circles have to each other.

Of Planes, and their Intersections. Definitions.

1. A straight line is perpendicular to a plane when it is at right angles with every line which it meets in that plane.

2. If two planes cut each other, and, from any point in the line of their common section, two straight lines be drawn at right angles to that line, one in the one plane and the other in the other plane, the angle contained by these two lines is the angle made by the planes.

3. Two planes are perpendicular to each other when any straight line, drawn in one of the planes perpendicular to their line of common section, is perpendicular to the other plane.

4. A straight line is parallel to a plane, when it does not meet the plane, though produced ever so far.

5. Planes are parallel to each other when they do not meet, though produced ever so far.

6. A solid angle is formed by the meeting, in one point, of three or more plane angles, which are not in the same plane with each other.

Theorem LXII.—Any three lines as A B, C D, C B (fig. 82, p. II.), which meet each other, not in the same point, are in the same plane.

For conceive a plane, passing through the line A B, to revolve round that line till it passes through the point C, then as the points E and C are in that plane, the line C D is in it; and for a similar reason the line C B is in the same plane; therefore all the three lines are in the same plane.

Theorem LXIII.—If two planes as A B, B C (fig. 83, p. II.), cut each other, their common section B D is a straight line.

For join B, D, by a straight line; then, as the points B and D are in both the planes, the straight line B D, which joins them, is in both the planes; and A, therefore, is their line of common section.

Theorem LXIV.—If a line, as A B (fig. 84, p. II.), be at right angles to each of two other straight lines, A D and A C, at A, their point of meeting; A B is also at right angles to the plane passing through A C and A D.

For through A, in the plane passing through A C and A D, draw any line A E; and through any point E in that line draw E F parallel to A D, meeting A C in F. In A F produced take F C equal to A F; join C E and produce A to D. Then (Theorem LII.) A F : F C :: D E : E C; and consequently as A F is equal to F C, D E is equal to A C. Hence (Theorem XXXV.) $AD^2 + AC^2 = 2DE^2 + 2AE^2$; and therefore, by adding $2AB^2$ to each of these equals, we have $AB^2 + AD^2 + AB^2 + AC^2 = 2AB^2 + 2AE^2 + 2ED^2$; or $BD^2 + BC^2 = 2AB^2 + 2A$

E^2+2ED^2. But (Theorem XXXV.) $BD^2+BC^2=2DE^2+2BF^2$, and consequently $2DE^2+2BE^2=2AB^2+2AE^2+2ED^2$; or, by omitting $2DE^2$ from each, $2BE^2=2AB^2+2AE^2$; or $BE^2=AB^2+AE^2$; and therefore the angle BAE is a right angle. AB is therefore at right angles to any line which it meets on the plane of AC, and AD, and it is consequently at right angles to that plane.

THEOREM LXV.—If a straight line as AB (fig. 85, p. II.) be at right angles to each of three straight lines, as BC, BD, BE, at B, their point of meeting, then these straight lines are all in one plane.

If they are not, let the plane passing through BE and BD meet the plane passing through BA and BC in the line BF; then BA (Theorem LXIV.) being perpendicular to the plane, BDE is perpendicular to BF, which it meets in that plane; hence the angles ABC and ABF in the same plane are equal, the less to the greater, which is impossible. Hence BC cannot be out of the plane in which BE and ED are, and the three lines are consequently in the same plane.

THEOREM LXVI.—If two straight lines as AB, CD (fig. 86, p. II.), be at right angles to the same plane, as BDE, they are parallel to each other.

In the plane BDE draw DE at right angles to BD; take any point E in it, and join EA, EB, and AD. Then (Theorem LIV. Cor. 2) $AE^2=AB^2+BE^2=AB^2+BD^2+DE^2=AD^2+DE^2$; therefore the angle ADC is a right angle; and, as the angles BDC and CDA are right angles, the lines CD, and AD, and BD, are in the same plane (Theorem LXIV.). But (Theorem LXII.) AB is in the plane of AD and BD; hence AB and CD are in the same plane, and, as the angles ABD and CDB are right angles, the lines AB and CD are parallel.

THEOREM LXVII.—If AB and CD (fig. 87,) p. II.) are parallel, and one of them, as AB, is perpendicular to a plane, as EF, the other, CD, is perpendicular to the same plane.

For if CD is not perpendicular to the plane EF, let DC, drawn through G, be perpendicular to A. Then (Theorem LXVI.) AB and DG are parallel; consequently DC and DG which cut each other, are both parallel to CD, which is impossible. Therefore no line drawn through D, except DC, is perpendicular to the plane EF; and DC is consequently perpendicular to A.

THEOREM LXVIII.—If two lines, as AB, CD (fig. 88, p. II.), be each parallel to another line, as EF, though not in the same plane with it, these two lines are parallel to each other.

From any point G, in EF, draw GH, in the plane of AB and FF, and perpendicular to EF; and from the same point G, but in the plane of CD and EF, draw GK perpendicular to EF. Then (Theorem LXIV.) EG is perpendicular to the plane KGH, and therefore (Theorem LXVII.) AB and CO are both perpendicular to the same plane; and consequently (Theorem LXVI.) they are parallel to each other.

THEOREM LXIX.—If two straight lines meeting each other, as AB, BC, (fig. 89, p. II.), are parallel to two other straight lines, as DE, EF, which also meet each other, but are not in the same plane with AB and BC, the angles ABC and DEF are equal.

For take AB equal to DE, BC to EC, and join AC, DF, AD, BE, and CF. Then AB being equal and parallel to DE, AD and BE are equal and parallel (Theorem XXIX.), and for the latter reason BE and CF are parallel. Hence AD and CF are equal and parallel, and therefore AC and DF are equal and parallel; consequently (Theorem V.) the angles ABC and DEF are equal.

THEOREM LXX.—If two planes as AB, CD (fig. 90, p. III.) be cut by a third plane, EH, the sections EF and GH are parallel.

For in the plane EH let EF and GH be drawn parallel to each other, and let EI and FK be perpendicular from E and F on the plane CD; then (Theorem LXVI.) EL and FK are parallels; and consequently (Theorem LXIX.) the angles HFK and GEI are equal, and the right angles EIG and FHK being equal, as well as FK and EL, the distance of the parallel planes; the triangles FHK and EGI are identical, and have FH equal to EG; but their lines are also parallel, therefore the lines EF and HG, which join them, are parallel (Theorem XXIII.)

THEOREM LXXI.—If a straight line, as AB (fig. 91, p. III.), be perpendicular to a plane, as CK, any plane DE, passing through AB, is at right angles to the plane CK.

For from any point F, in CE, the common section of the two planes, draw FG, in the plane DE, perpendicular to CE. Then AB, being perpendicular to CK, is perpendicular to CE, which it meets in that plane, and it is therefore parallel to FG; and consequently (Theorem LXVIII.) FG is perpendicular to the plane CK. Hence (Def. 3, PLANES), the plane CH is perpendicular to the plane CK.

THEOREM LXXII.—If each of two planes, as AB, BC (fig. 92. p. III.), be perpendicular to another plane, as ADC, the common section, BD, of the first two planes, is perpendicular to the third plane.

For from D, in the plane ADC, draw DE perpendicular to AD, and DF to DC. Then as DE is perpendicular to DA, the common section of the planes AB and ADC, and those planes are at right angles to each other, ED is at right angles to AB, and consequently at right angles to DB, which it meets in that plane. For the same reason, DF is at right angles to DB, and hence, as BD is at right angles to DF and DE, it is at right angles to the plane ADC, in which those lines are (Theorem LXIV.)

THEOREM LXXIII.—If a solid angle, as A (fig. 93, p. III.) be contained by three plane angles as CAB, CAD, DAB, any two of these angles together are greater than the third.

If the angles are all equal, the proposition is manifest.—If they are not equal, let BAC be the greatest, and, in the plane BAC, draw AE, making the angle BAE equal to the angle BAD; make AE equal to AD, and through E draw any straight line BEC, cutting AB and AC in B and C, and join BD, CD. Then (Theorem I.) the triangles BAE and BAD are

identical, and have B D and B E equal, and consequently E C is the difference of B C and B D, and (Theorem XIV.) E C is less than D C. Now as A E is equal to A D, A C common to both the triangles A C E and A C D, but E C less than D C, it follows (Theorem XII.) that the angle E A C is less than the angle C A D. Hence the angles B A E and E A C together, or the whole angle B A C, is less than the sum of the angles B A D and C A D.

Theorem LXXIV.—If a solid angle as A (fig. 94, p. III.) be contained by any number of plane angles, as B A C, C A D, D A B, E A B, these plane angles together are less than four right angles.

Let the planes which contain the solid angle, A, be cut by another plane B C D E. Then the solid angles at B, C, D, and E, being each contained by three plane angles, A B E and A B C are less than C B E, A C B, A C D are less than B C D, A D C and A D E are less than C D E, and A E B and A E D are less than B E D. Hence the angles at the bases of the triangles which have their common vertex at A are greater than the interior angles of the rectilineal figure B C D E. But all the angles of the triangles B A C, C A D, D A E and B A E, are equal to twice as many angles as there are sides in the figure B C D E; and the interior angles of that figure, together with four right angles, being also equal to twice as many right angles as the figure has sides (Theorem XX.), the angles of the triangles are equal to the interior angles of the plane figure and four right angles. And, as all the angles at the bases of the triangles are greater than all the interior angles of the figure; the remaining angles of the triangles, or those which contain the solid angle A, are less than four right angles.

On the Comparison of Solids.

Definitions.

1. Similar solids, contained by plane figures, have their corresponding solid angles equal, and are bounded by the same number of similar planes, alike placed.

2. A prism is a solid whose ends are parallel, equal, and similar plane figures, and its sides, connecting those ends, are parallelograms.

3. An upright prism is one having the planes of its sides perpendicular to the planes of its ends.

4. A parallelopiped, or parallelopipedon, is a prism bounded by six parallelograms, every opposite two of which are equal, similar, and parallel.

5. A rectangular parallelopipedon is one whose bounding planes are rectangles, perpendicular to each other.

6. A cube is a rectangular parallelopipedon, whose sides are all equal.

7. A cylinder is a prism whose ends are circles; and its axis is the right line joining the centres of the parallel circles which form its ends.

8. A pyramid is a solid whose base is any rectilineal plane figure, and its sides triangles whose vertices meet in a point above the base, called the vertex of the pyramid.

9. A cone is a pyramid having a circle for its base; and the axis of a cone is the line joining the vertex to the centre of the circle which forms the base.

10. Similar cones, and cylinders, are those that have their altitudes in the same proportions as the diameters of their bases.

11. A sphere is a solid bounded by a curve surface, every point of which is at the same distance from a point within, called the centre.

12. The diameter of a sphere is any right line passing through the centre and terminated both ways by the surface.

13. The altitude of a solid is the perpendicular drawn from the vertex to the opposite side or base.

Theorem LXXV.—A section of any pyramid as A B C D (fig. 95, p. III.), parallel to the base B C D E, is similar to the base; and these two planes are to each other as the squares of their distance from the vertex, or as AH^2 to AI^2, A I H being a perpendicular from A on the two parallel planes.

For join C H, F I. Then (Theorem LXX.) B C and E F are parallel, and C D and F G are parallel, and consequently (Theorem LXVIII.) the angles E F G and B C D are equal. In the same way it may be shown that each angle in the plane E G is equal to the corresponding angle in the plane B D, and consequently these planes are equiangular.

Again the triangles A B C and A E F being equiangular, as are also the triangles A C D and A F G, we have (Theorem LII. Cor.) A C : A F :: B C : E F :: C D : F G. In the same way it may be shown that all the sides of the plane of E G are proportional to the corresponding ones in B D, hence (Def. 52) the figures B C D E and E F G O are similar.

But (Theorem LXI.) the plane B D is to the plane E G as $BC^2 : EF^2$, or as $AC^2 : AF^2$; or as $AH^2 : AI^2$; because the triangles A H C, A I F, having the angles H and I right angles, and the angle A common, are similar, and therefore A C : A F :: A H : A I, or $AC^2 : AF^2 :: AH^2 : AI^2$, whence the plane B D is to the plane E G as $AH^2 : AI^2$.

Cor.—If the point A be conceived to be infinitely distant from the base, the pyramid will become a prism; and the ratio of A H to A I, as well as that of AH^2 to AI^2, will be that of equality. Hence in any prism a section by a plane parallel to the base will be equal and similar to the base.

Theorem LXXVI.—In any cone as A B C D (fig. 96, p. III.), if G H I be a section parallel to the base, then G H I is a circle; and B C D, G H I are to each other as the squares of their distances from the vertex.

For let A L F be perpendicular to the parallel planes, and let the planes A C E, A D E, pass through the axis A K E of the cone, meeting the section in the points H, I, K.

Then (Theorem LXX.) H K and E C are parallel, as well as K I and E D, and by similar triangles K H : E C :: A K : A E :: K L : E D; but E C is equal to E D, therefore K I is equal to K H; and, as the same may be shown of any other lines drawn from K to the circumference of the section G H I, that section is a circle

Again, by similar triangles AL : AF :: AK : AE :: KI : ED, whence $AL^2 : AF^2 :: KI^2 : ED^2$ :: circle GHI : circle DCD (Theorem LXI. Cor). Hence $AL^2 : AF^2$ :: circle GHI : circle BCD.

Cor. If the point A be conceived to be infinitely distant from the base, the cone will become a cylinder, and the ratio of AL to AF, as well as that of AL^2 to AF^2, will be that of equality. Hence in any cylinder, the sections parallel to the base are circles equal to the base.

THEOREM LXXVII.—All pyramids and cones of equal bases and altitudes are equal to each other.

Let the pyramid ABCDI (fig. 95, p. III), and the cone ABCD (fig. 96, p. III.) have equal bases and altitudes, and parallel to these bases, and at equal distances, AI and AL, conceive the planes EG and GKHI to be drawn. Then (Theorem LXXV. and LXXVI.) $AI^2 : AH^2$ :: EG : BD; and $AL^2 : AF^2$: GKHI : BCD; and as AI^2, AH^2, are equal to AL^2, AF^2, therefore EG : BD :: GKHI : BCD; and, as BD is equal to BCD, EG is equal to GKHI. In this manner may all rations in each figure at the same distance from the vertex be shown to be equal, and consequently, as the heights are equal, the solids which are composed of these sections are equal.

Cor. All prisms and cylinders whose bases and altitudes are equal, are equal to each other; and prisms and cylinders are equal to a rectangular parallelopipedon of the same base and altitude.

THEOREM LXXVIII.—A pyramid whose base is triangular, as BDEF (fig. 97, p. III.), is the third part of a prism having the same base and altitude.

For let ABCDEF be a prism on the same triangular base DEF, and, on the three rectangular sides of the prism, draw the diagonals BF, BD, CD. Then the planes BDF, BCD, divide the whole prism into three pyramids, BDEF, DABC, DBCF, which may be thus proved equal to each other.

The bases ABC and DEF being equal (Def. 2, SOLIDS), the pyramids ABCD and DEFB are equal (Theorem LXXVII.); and the bases BEF and BCF being equal (Theorem XXI.) the pyramids DEFB and BCFD are equal (Theorem LXX.). Hence all the three pyramids which compose the prism are equal, and the pyramid is the third part of the prism, or the prism is three times the pyramid.

Cor. 1. Every pyramid, whatever may be its figure, is the third part of a prism having the same base and altitude, since the base of the prism may be divided into triangles, and the whole solid into triangular prisms and pyramids.

Cor. 2. A cone is the third part of a cylinder, or of a prism having the same base and altitude; for it has been proved that a cylinder is equal to a prism, and a cone equal to a pyramid of equal base and altitude.

THEOREM LXXIX.—If AC and EG (fig. 98, p. III.) be two rectangular parallelopipedons having equal altitudes, AD, FH, then AC is to EG as the base AB to the base EF.

For, let the base AB be to the base EF as any number (say 3) is to any other number (as 2); and conceive AB to be divided into three equal rectangles, AI, LK, and MB; and EF into two equal rectangles, EO and PF; and through the lines of division let the planes LR, MS, PV, pass, parallel to AQ, and ET. Then the parallelopipedons AR, LS, MC, EV, and PQ, having equal bases and altitudes, are all equal (Theorem LXXVII). Hence the solids are to each other in the same proportion as their bases.

Cor. 1. From this theorem, (and Theorem LXXVII. Cor.) it appears that all prisms and cylinders of equal altitudes are to each other as their bases; and from this, combined with Theorem XLV. Cor., and Theorem LXXVIII., it appears that pyramids and cones of equal altitudes are to each other as their bases.

Cor. 2. By considering AQ and TE as the equal bases of the parallelopipedon AC, EG, those parallelopipedons will be to each other as their altitudes AN, EW. Hence prisms and cylinders of equal bases are to each other as their altitudes, and consequently pyramids and cones of equal bases are also to each other as their altitudes.

Cor. 3. As prisms and cylinders are as their altitudes when their bases are equal, and as their bases when their altitudes are equal, therefore, when neither are equal, they are in the compound ratio of their bases and altitudes.

THEOREM LXXX.—Similar prisms and cylinders are to each other as the cubes of their like linear dimensions.

For the bases are as the squares of their like sides, and the altitudes are as those sides; and the solidities being in the compound ratio of the bases and altitudes (Theorem LXXIX., Cor. 2) are as the cubes of those like sides.

Cor. Similar pyramids and similar cones, being the third parts of their corresponding prisms and cylinders, are to each other as the cubes of their like linear dimensions; and all similar solids whatever, being composed of similar pyramids, are to each other as the cubes of their like linear dimensions.

THEOREM LXXXI.—Every section of a sphere by a plane, as CDEGF (fig. 99, p. III.), is a circle.

If the plane pass through the centre, then, as every point in the surface of the sphere is equidistant from its centre, the section is a plane figure, every point of whose periphery is equidistant from a certain point within it, and the figure is therefore a circle.

But if the plane do not pass through the centre, from the centre A, let AB be a perpendicular to the plane; take any two points, C, D, in the circumference of the section, and join AC, AD, BC, and BD. Then, as AB is perpendicular to the plane CDEGF, it is perpendicular to the lines CB and BD, which it meets in that plane; therefore $AC^2 = AB^2 + BC^2$, and $AD^2 = AB^2 + BD^2$; hence, as AC = AD, $AB^2 + BC^2 = AB^2 + BD^2$, and consequently $BC^2 = BD^2$, or BC = BD. Hence all lines drawn from B in the plane CDEGF, to the periphery of that plane, are equal, and the figure is therefore a circle.

THEOREM LXXXII.—A sphere is two-thirds of its circumscribing cylinder.

For, let AC (fig. 100, p. III.) be a section of

the sphere and cylinder; through the centre I, join A I, B I. Let F I H be parallel to A D or B C, E I G and K L parallel to A B or D C, the base of the cylinder; K L meeting B I in M, and the circular section of the sphere in N.

Then, if the plane H F B C be conceived to revolve round the line H F as an axis, the square F G will describe the cylinder A G, the quadrant I F G will describe the hemisphere E F G, and the triangle I F B will describe the cone A I B; and, in the rotation, K L, K N, and K M, will describe corresponding sections of those solids, all of which have the common altitude F I

Now, as I F is equal to F B, by similar triangles K I is equal to K M, and I N is equal to I G or K L, and (Theorem XXXI., Cor.) $IN^2 = IK^2 + KN^2$; or $KL^2 = KM^2 + KN^2$; or the square of the longest radius of these circular sections is equal to the sum of the squares of the two others. And as circles are to each other as the squares of their radii (Theorem LXI., Cor.), the circle whose radius is K L is equal to the sum of those whose radii are respectively K M and K N; or the section of the cylinder is equal to the sum of the corresponding sections of the sphere and cone; and hence, as the altitudes are the same, the cylinder is equal to the sphere and cone together. But (Theorem LXXVIII., Cor. 2) the cone is one-third of the cylinder having the same base and altitude; therefore a sphere is two-thirds of the cylinder whose base and altitude respectively are equal to the diameter of the sphere.

Cor. 1. Spheres are to each other as the cubes of their diameters, for they are like parts of their circumscribing cylinders.

PART II.

SPHERICAL GEOMETRY.

Definitions.

1. The circles of a sphere whose planes pass through the centre are called *great circles*; and those whose planes do not pass through the centre are called *less circles* of the sphere.

2. The pole of a circle, is a point on the surface of the sphere equidistant from every point in the circumference of the circle.

3. A spherical angle is an angle formed by the surface of a sphere by the arcs of two great circles which intersect each other, and it is the same as the inclination of the planes of the circles, or as the angle formed by the tangents of the arcs at the point of intersection.

4. A spherical triangle is a figure formed on the surface of a sphere by the intersection of three planes which meet in the centre of the sphere.

Theorem LXXXIII.—Any two great circles as A D C, A B C (fig. 101, p. III.), mutually bisect each other.

For the centre of the sphere being in the plane of each circle, is in their line of common section, which line, being a straight line (Theorem LXIII.), is therefore a diameter; and hence A D C, and A B C, are semicircles.

Theorem LXXXIV.—The distance of a great circle, A B C from its pole, D (fig. 101, p. III.), is a quadrant.

For A D C is a semicircle (Theorem LXXXIII.), and (Def. 2, Spherical Geometry) D is equidistant from every part of A B C; A is therefore equidistant from the points A and C, and consequently A D and D C are quadrants.

Theorem LXXXV.—If two great circles, as B A, C A (fig. 102, p. III.), intersect each other in A, on the surface of a sphere whose centre is D; and if B C be an arc of a great circle whose pole is A, then B C is the measure of the spherical angle A B C.

For, join A D, B D, and C D, then as A is the pole of B C, A B and A C are quadrants, and the angles A D B and A D C are right angles, and consequently (Planes Def. 3) the plane angle B D C is the angle made by the planes A D B and A D C, or A is equal to the spherical angle A B C (Spherical Geometry Def. 3). But the angle B D C is measured by the arc B C, hence the equal angle B A C is measured by the same arc B C.

Cor. 1. As A D is perpendicular to B D and D C, it is perpendicular to the plane B D C (Theorem LXIV.), therefore the planes A D B and A D C, which pass through A D, are also perpendicular to the plane B D C. Hence the spherical angles A B C and A C B are right angles.

Cor. 2. Great circles whose planes are at right angles to the plane of another great circle, meet in the poles of that circle.

Cor. 3. Great circles which are at right angles to each other, pass each through the poles of the other; and if one circle pass through the pole of another, it cuts that great circle at right angles.

Theorem LXXXVI.—Any two sides, as A B and B C, of a triangle as A B C (fig. 103, p. III.) are together greater than the third side A C.

For if D be the centre of the sphere, then the solid angle D is contained by three plane angles A D B, B D C, and A C D, any two of which are greater than the third (Theorem LXXIII). But these angles are measured respectively by the arcs A B, B C, and A C, hence any two of these arcs as A B and B D are together greater than the third arc A C.

Theorem LXXXVII.—The three sides of a spherical triangle, as A B C (fig. 103, p. III.), are together less than a circle.

For the plane angles which form the solid angle D are altogether less than four right angles (Theorem LXXIV.), therefore the arcs A B, B C, and A C, which measure those plane angles are altogether less than a circle.

Theorem LXXXVIII.—In isosceles spherical triangles, the angles opposite the equal sides are equal; and if two angles of a spherical triangle are equal, the sides which are opposite those angles are equal.

Let A B C (fig. 104, p. III.) be a spherical triangle, having two sides A B and B C equal, and let D be the centre of the sphere. Let B E and E C be tangents to A B and A C, and B F, C F two tangents drawn from B and C in the plane D B C, and intersecting each other in F, and join F E. Then the angles D B E and D C E being right angles (Theorem XLIV.), and the angles E D B and E D C measured by the equal arcs A B and A C being also equal, and the adjacent sides D B and D C, radii of the same

sphere being equal, the triangles E D B and E D C are identical (Theorem II.) and have E B and B C equal; and B F being equal to F C (Theorem LVI. Cor.), and E F common to the two triangles E F B and E F C, those triangles are identical (Theorem V.) and have the angles E B F and E C F (which are equal to the spherical angles A B C and A C D) equal to each other.

Again, the same construction being made, suppose the spherical angles A B C and A C B, or the plane angles E B F and E C F, to be equal; then as D B is at right angles to B E and B F, A is at right angles to the plane B E F (Theorem LXIV); and therefore the plane D B C, which passes through D B, is at right angles to the plane B E F. (Theorem LXXI.). For a like reason the plane D B C is at right angles to the plane E C F, and consequently (Theorem LXXII.) F E, the common section of the planes E B F, E C F, is at right angles to the plane D B C. Hence E F B and E F C are right angles, and therefore as the angles E B F and E C F are equal, and the side B F equal to the side F C, the triangles E B F and E C F are identical (Theorem II). Whence B E is equal to E C, and as D B is equal to D C, and the angles D B C and D C E are equal, the angle E D B is equal to the E D C (Theorem I.); or the arc A B is equal to the arc A C.

Theorem LXXXIX.—In any spherical triangle as A B C (fig. 105, p. III.) the greater side is opposite the greater angle, and the greater angle opposite the greater side.

If A B C be greater than A, let A B D, a part of A B C, be equal to A; then (Theorem LXXXVIII.) A D is equal to D B, and consequently B D and D C are equal to A D and D C, but B D and D C are greater than B C (Theorem LXXXVI.) therefore A D and D C (or A C) are greater than B C.

Again if A C is greater than B C, then if the angle B is not greater than A, it must be equal to it, or less. If it were equal then A C and B C would be equal (Theorem LXXXVIII.), and if it were less then by the preceding part of the proposition A C would be less than B C; both of which conclusions are inconsistent with the given condition that A C is greater than B C. Hence the angle B must be greater than the angle A.

Theorem XC.—If A, B, C, the angles of the spherical triangle A B C (fig. 106, p. III.), be the poles of three great circles D E, E F, and F D, then D, E, and F, the points where these circles intersect will be the poles of A C, A B, and B C, respectively; and the sides D E, E F, and F D, will be respectively the supplements of the measures of the angles A, B, and C; and the sides A B, B C, and A C, will also respectively be the supplements of the measures of the angles E, F, and D.

For let A B, A C, and B C, be produced both ways, till they meet D E, E F, and D F, in G, H, I, K, L, and M. Then G H is the measure of the angle B A C, K I the measure of A B C, and M L the measure of A C B (Theorem LXXXV). And as A is the pole of D E, the angle A H D is a right angle (Theorem LXXXV. Cor. 1), and for a like reason the angle C L D is a right angle; hence (Theorem LXXXV. Cor. 2) D is the pole of L H. In the same way it may be shown that E is the pole of G K, and F the pole of M I; therefore L H is the measure of D, G K the measure of E, and M I the measure of F.

Now as D is the pole of L H, D H is a quadrant, and as E is the pole of G K, E G is a quadrant (Theorem LXXXIV.); therefore E G and D H, or E D and G H, together are a semicircle. Hence D E is the supplement of G H, the measure of the angle B A C. In a similar way it may be shown that E F is the supplement of the measure A B C, and that D F is the supplement of the measure of A C B.

Again, because A is the pole of D E, A G is a quadrant, and, because B is the pole of E, F is a quadrant. Hence A G and B K, or A B and K G, together are equal to a semicircle; or A B is the supplement of G K, the measure of the angle E. And in the same way it may be shown that A C is the supplement of the measure of D, and B C the supplement of the measure of F.

Theorem XCI.—The sum of the interior angles of a spherical triangle is greater than two, and less than six right angles.

For (fig. 106, p. III.) the measures of the angles A, B, C, together with the sides of the supplemental triangle D E F are equal to three semicircles; and as (Theorem LXXXVII.) the three sides of the triangle D E F, are less than four semicircles, the measures of the angles A, B, and C, are greater than two semicircles; or those angles are greater than two right angles.

And, as the interior and exterior angles of any triangle are equal to six right angles, the interior angles alone must be less than six right angles.

Theorem XCII.—If A G F B (fig. 107, p. III.) be the circumference of a great circle, of which D is the pole, and C any other point on the surface of the sphere, the greatest arc of a circle that can be drawn from C to the circle A G F B is that passing through D, and those which are nearer A D C are greater than those which are more remote.

For, as C A passes through the pole of A F B, the planes A C B and A F B are at right angles; therefore C E drawn in the plane A C B, perpendicular to A B the common section of the two planes, is perpendicular to A E, G E, and F E, which it meets in the plane A F B; and (Theorem XXXVI.) A E is greater than G E, and G E greater than F E; and the right-angled triangles A E C, G E C, F E C, having E C common, the hypothenuse A C is greater than G C, and G C greater than F C. Hence the arc A C is greater than the arc G C, and the arc G C greater than the arc F C.

Theorem XCIII.—In any right-angled spherical triangle, the sides containing the right angle are of the same affection as their opposite angles; that is, if the sides are greater or less than quadrants, the opposite angles are greater or less than right angles; and, conversely, if the angles are greater or less than right angles, the opposite sides are greater or less than quadrants.

Let A B C (fig. 108, p. III.) be a spherical triangle, right-angled at A; produce A C, A B, till

they meet in G, and bisect the semicircles A B G and A C G in E and F. Then F will be the pole of A B G and E the pole of A F G; join C E, then C E will be a quadrant (Theorem LXXXIV.) and E C A will be a right angle (Theorem LXXXV. Cor. 3.). Hence when A B is less than A E, or less than a quadrant, the opposite angle A C B is less than a right angle.

Again, let A D C be a spherical triangle, right angled at A, having A D greater than a quadrant, then the angle D C A is greater than the angle E C A, or greater than a right angle.

The converse may be demonstrated in a similar manner.

Theorem XCIV.—In the right-angled spherical triangle, if the sides which contain the right angle are of the same affection, the hypothenuse, or the side opposite the right angle, is acute; but if they be of different affections, the hypothenuse is obtuse.

For when A C and A B (fig. 108, p. III.) are each less than a quadrant, C B being farther from C F G than C E, is less than C E (Theorem XCII.), and therefore less than a quadrant. But if A D be greater, and A C less than a quadrant, then C D, being nearer C F G than C E, is greater than C E, or greater than a quadrant.

Again, in the right-angled triangle C G B, where C G and G B are each greater than a quadrant, C B being farther from C F G than C E is less than a quadrant.

Cor. 1. Hence, conversely, if the hypothenuse of a right-angled spherical triangle is greater than a quadrant, the sides about the right angle are of different affections; and, if the hypothenuse is less than a quadrant, the sides are of the same affection.

Theorem XCV.—In any spherical triangle, as A B C (fig. 109, p. III.), if the perpendicular B D fall within the triangle, the angles A and C are of the same affection; but, if the perpendicular fall without the triangle, the angles at the base are of different affections.

For when B D falls within the triangle, the angles A and C of the right-angled triangles A D B and B D C, being each of the same affection with B D (Theorem XCIII.), are of the same affection with each other.

But, when the perpendicular falls without the triangle, the angles D A B and D C B, being each of the same affection with B D, are of the same affection with each other; hence B A C and B C A are of different affections.

PART III.

PRACTICAL GEOMETRY.

Problem I.—To bisect a straight line, as A B (fig. 110. p. III.).

From the points A and B, as centres, with any radius greater than half A B, describe arcs cutting each other in *n* and *m*; join *n m*, and A B will be bisected in C, the point in which A is cut by *m n*.

For join A *n*, A *m*, B *n*, and B *m*; then because A *n*, and A *m*, are respectively equal to B *n* and B *m*, and *n m* is common to both triangles A *n m* and B *n m*, the angles A *n m* and B *n m* are equal. And hence, as A *n* and B *n* are equal, *n* C is common to both triangles, and the angle A *n* C equal to the angle B *n* C, the remaining sides A C and B C are equal (Theorem I.), or A B is bisected in C.

Problem II.—To bisect a given angle, as A B C (fig. 111, p. III.).

From the angular point B with any radius describe the arc A C, and from the points A and C, with the same or any other radius, describe arcs intersecting in *n*. Join B *n*, and A will bisect the angle A B C.

For A *n* and C *n* being joined, then (Theorem V.) the triangles A B *n* and *n* B C are equal in every respect, and therefore the corresponding angles A B *n* and C B *n* are equal, or the angle A B C intersected by the line B *n*.

Problem III.—From a given point C in a given line as A B (figs. 112 and 113, p. III.) to draw a perpendicular.

1. When the point C is near the middle of the line (fig. 112, p. III.) On each side of C take any two equal distances C *n*, C *m*; and from *n* and *m*, with any radius greater than C *n* or C *m*, describe arcs cutting each other in *s*. Join *s* C, then that line will be the required perpendicular.

For (Theorem V.) the angles A C *s*, and B C *s*, are equal, and therefore (Def. 7.) C *s* is perpendicular to A B.

2. When the point C. is near the end of the line (fig. 113, p. III.). Take any point, *o*, as a centre, and with the radius *o* C describe an arc cutting A B in *m* and C. Through *m* and *o*, draw the line *m o n*, cutting the arc in *n*. Join *n* C, and it will be the perpendicular required.

For the angle *m* C *n*, being in a semicircle, is a right angle (Prop. 37, Cor. 3,) therefore *n* C is perpendicular to A B.

Or from any scale of equal parts take C *m* equal to four parts, and with C as a centre and radius equal to two or three parts, describe an arc; and with *m* as a centre, and radius equal to five of the same equal parts, describe an arc, cutting the preceding one in *n*, join *n* C, which will be perpendicular to A B.

For $5^2 = 4^2 + 3^2$; hence (Theorem LIV Cor. 2), A C *n* is a right angle.

Problem IV.—From a given point C, out of a given line A B, to draw a line perpendicular to A B (figs. 114 & 115, p. III.)

1. When the given point is nearly opposite the middle of the line, as in fig. 114. Take any point *o*, on the other side of A B, and from the centre C, with the radius C *o*, describe an arc, cutting A B in *m* and *n*; bisect *n m* in G, and join C G; then C G is perpendicular to A B. For C *n* and C *m* are equal, and G *n* and G *m* are equal, and G C common to the triangles C *n* G and C *m* G, therefore the angles C G *n* and C G *m* are equal (Theorem V.), or C G is perpendicular to A B.

2. When the point is nearly opposite the end of the line, as in fig. 115. Draw any line C *m*, from C to A B; bisect C *m* in *n*, and with centre *n* and radius C *n* or *m n* describe a circle, cutting A B in G; then, if C G be joined, the line will be perpendicular to A B. For the angle C G *m* being in a semicircle is a right angle.

Problem V.—At a given point D, in a given line D E, to make an angle equal to a given angle A B C (fig. 116, p. III.)

From B as a centre with any radius, describe the arc nm, cutting B A, B C, in the points m, n; and from D as a centre, with the same radius, describe the arc rs; take the distance mn, and apply it to the arc rs, from r to s. Draw D F through D and s, then the angle E D F will be equal to the angle A B C, as is evident from Theorem V.

PROBLEM VI.—Through a given point C (fig. 117, p. III.) to draw a line parallel to A B.

From C to A B draw any line C D; then through C draw C E, making the angle E C D equal to the alternate angle C D A, then (Theorem XVI.) C E is parallel to A B.

PROBLEM VII.—To draw a line, as F C (fig. 118, p. III.), parallel to another line A B, and at the distance of C D from A.

At any point E in A B, draw E F perpendicular to A B, and equal to C D, and through F draw F G parallel to A B, and A will, as is evident, be the required line.

PROBLEM VIII.— To divide a line as A B (fig. 119, p. III.) into n equal parts.

Through one extremity A, draw any line A C, and on it take $\overline{n+1}$ equal parts, D being the termination of the $\overline{n+1}^{th}$ part, I that of the nth part, and F that of the $\overline{n-1}^{th}$ part. Join D B, and produce it till B E is equal to B D, and join E F, cutting A B in P, then B P is the nth part of A B. For F I being equal to I B, and E B to B D, F E and I B are parallel, therefore A B : B P : : A L · I F : 1 : n; therefore B P is the nth part of A B.

PROBLEM IX.—To find the centre of a circle A D B C (fig. 120, p. III.)

Draw any chord A B, and A, bisect it with the perpendicular C D; bisect C D in O, and O will be the centre of the circle.

For if the centre is in C D, it must be in O, the middle of it. If it is not in C D let it be at F, and join F E, F A, and F B; then A F will be equal to F B, A E to E B, and E F common to the two triangles A F E and B F E, which (Theorem V.) are therefore identical, and consequently the angles A E F and B E F, being equal, will be right angles, and each equal therefore to the angle B E C, which is impossible. Hence the centre is in C D, and consequently it is in the point O.

PROBLEM X.—To describe the circumference of a circle through three given points, A, B, C, (fig. 121, p. III.)

Join A C, B C, and bisect these lines with the perpendiculars D O and E O, and from the point O, with the distance O A, O B, or O C, describe the circle A B C, and it will be the circle required.

For as A D and D O are respectively equal to C D and D O, and the included angles A D O, and C D O, are equal, A O and C O are equal; and for a like reason B O is equal to C O. Hence O is the centre of a circle passing through A, B, and C.

Note. By this problem a circle may be described about a triangle.

PROBLEM XI —To inscribe a circle in a triangle, as A B C (fig. 122, p. III.) Bisect any two of the angles as A and B, and the bisecting lines A D and B D will meet in the centre of the circle.

For from D draw D E, D F, and D G, perpendicular to the sides. Then as the angles D A G and D A E are equal, and the right angles D E A and D G A are equal, the angles A D E and A D G are equal; and consequently, as A D is common to both triangles, G D and D E are equal.

In the same way it may be shown that D E and D F are equal; and as the angles E, F, and G, are right angles, a circle described from D as a centre, with any of these equal lines as a radius, will touch the sides in E, F, and G, and it will consequently be inscribed in the triangle.

PROBLEM XII.—To make a triangle equal to any rectilineal figure, as A B C D E (fig. 123, p. III.).

Draw A D, and parallel to it draw E F, meeting A B produced in F, then the triangles A D E and A F D are equal (Theorem, XXIV. Cor.) Proceed similarly with D B and C G, and the triangle F D G will obviously be equal to the figures A B C D E.

In the same way the figure may be reduced to a triangle whatever be the number of sides.

PROBLEM XIII.—To make a rectangle equal to a given triangle, A B C (fig. 125, p. III.)

Bisect A B in D with the perpendicular D E meeting C F, drawn parallel to A B in E; and draw B F parallel to D E. Then the rectangle D F will be equal to the triangle A B C (Theorem XXV. Cor. 3).

PROBLEM XIV.—To find B D, the side of a square whose area is equal to a rectangle contained by A B and B C (fig. 125, p. III.).

Upon A C, the sum of A B and B C, describe a semicircle, and draw the perpendicular B D, which will be the side of the square. For the rectangle of A B and B C is equal to the rectangle of B D, and the other segment of the chord, of which B D is a part (Theorem LVI.); but (Theorem XLII.) that segment is equal to B D; therefore the rectangle A B · B C is equal to the square of B D.

PROBLEM XV.—On a straight line A B (fig. 126, p. III.) to describe the segment of a circle, to contain an angle equal to a given angle.

Make B A C equal to the given angle, bisect A B with the perpendicular D E, meeting A E, a perpendicular to A C in E, then with E as a centre, and E A or E B as a radius, describe the circle A F B G; then (Theorem XL.) the angle B A C is equal to any angle in the segment A G B.

GEOPON'ICAL, *adj.* } Γεα and πονος. The
GEOPON'ICS, *n. s.* } doctrine of agriculture.

Such expressions are frequent in authors *geoponical*, or such as have treated de re rusticâ.

Browne's Vulgar Errours.

GEORGE, *n. s.* Lat. *Georgius.* A proper name; a figure of St. George worn by the Knights of the Garter; a name formerly given to a brown loaf, and at present applied to the rolls used at colleges in Oxford.

Look on my *george*, I am a gentleman;
Rate me at what thou wilt.

Shakspeare. Henry VI.

Cubbed in a cabin, on a mattrass laid,
On a brown *george*, with lowsy swobbers fed.

Dryden.

GEORGE I., king of Great Britain. See GREAT BRITAIN and HANOVER.

GEORGE II. See GREAT BRITAIN and HANOVER.

GEORGE III. See GREAT BRITAIN.

GEORGE (St.), a saint or hero, after whom several orders, both military and religious, are denominated. On some medals of the emperors John and Manuel Comneni, we have the figure of St. George armed, holding a sword or javelin in one hand, and in the other a buckler, with this inscription; an O, and therein a little A, and ΓΕ—ΓΙΟC, making Ο ΑΓΙΟΣ ΓΕΟΡΤΙΟΣ, *O holy George.* He is generally represented on horseback; and is highly venerated throughout Armenia, Muscovy, and all the countries which adhere to the Greek church; from the Greek, his worship has long been received into the Latin church; England and Portugal have both chosen him for their patron saint. Great difficulties have been raised about this saint or hero. His very existence has been called in question. Dr. Heylin supposed him only a symbolical device; and Dr. Pettingal asserted him to be a mere Basilidian symbol of victory. The following is Mr. Gibbon's account of this saint. He asserts him to have been an Arian bishop born at Epiphania in Cilicia, in a fuller's shop. From this obscure and servile origin, says this author, he raised himself by the talents of a parasite: and the patrons, whom he assiduously flattered, procured for their worthless dependent a lucrative commission, or contract, to supply the army with bacon. His employment was mean: he rendered it infamous. He accumulated wealth by the basest arts of fraud and corruption; but his malversations were so notorious, that George was compelled to escape from the pursuits of justice. After this disgrace, in which he appears to have saved his fortune at the expence of his honor, he embraced with real or affected zeal the profession of Arianism. From the love, or the ostentation, of learning, he collected a valuable library of history, rhetoric, philosophy, and theology; and the choice of the prevailing faction promoted George of Cappadocia to the throne of Athanasius. His conduct in this station is represented by our historian as polluted by cruelty and avarice, and his death is by him considered as a just punishment for the enormities of his life. The occasion of his death, however, as narrated by ecclesiastical writers, will not add any stain to his memory. There was in Alexandria a place in which the priests used to offer human sacrifices. This place Constantius gave to the church of Alexandria, and George the bishop ordered it to be cleared, to build a Christian church on it. In doing this, they discovered a subterraneous cavern, in which the heathen mysteries had been performed, and in it were many human skulls. These, and other things which they found in the place, the Christians brought out and exposed to public ridicule. The heathens, provoked at this exhibition, took arms, and rushing upon the Christians killed many of them; they also seized the bishop in the church, and put him in prison. The next day they despatched him; and then, fastening his body to a camel, dragged it about the streets all day, and in the evening they burnt it and the camel together. This fate, according to Sozomen, the bishop owed in part to his haughtiness while he was in favor with Constantius; but he ascribes it chiefly to the inveteracy of the heathens, whose superstitions George had been very active in abolishing. But Mr. Gibbon gives a different turn to the affair of George's murder, and relates it with different circumstances. 'The Pagans,' says he, 'excited his devout avarice; and the rich temples of Alexandria were either pillaged or insulted by the haughty prelate, who exclaimed, in a loud and threatening tone, 'How long will these sepulchres be permitted to stand?' Under the reign of Constantius, he was expelled by the fury, or rather by the justice of the people; and it was not without a violent struggle that the civil and military powers of the state could restore his authority and gratify his revenge. The messenger who proclaimed at Alexandria the accession of Julian announced the downfal of the archbishop. George, with two of his obsequious ministers, count Diodorus and Dracontius master of the mint, was ignominiously dragged in chains to the public prison. At the end of twenty-four days the prison was forced open by the rage of a superstitious multitude, impatient of the tedious forms of judicial proceedings. The enemies of gods and men expired under their cruel insults; the lifeless bodies of the archbishop and his associates were carried in triumph through the streets on the back of a camel; and the inactivity of the Athanasian party was esteemed a shining example of evangelical patience. The remains of these guilty wretches were thrown into the sea; and the popular leaders of the tumult declared their resolution to disappoint the devotion of the Christians, and to intercept the future honors of these martyrs who had been punished, like their predecessors, by the enemies of their religion. The fears of the Pagans were just and their precautions ineffectual. The meritorious death of the archbishop obliterated the memory of his life. The rival of Athanasius was dear and sacred to the Arians, and the seeming conversion of these sectaries introduced his worship into the bosom of the Catholic church. The odious stranger, disguising every circumstance of time and place,

assumed the mask of a martyr, a saint, and a Christian hero; and the infamous George of Cappadocia has been transformed into the renowned St. George of England, the patron of arms, of chivalry, and of the garter.' *Hist.* vol. ii. p. 404.

GEORGE (St.), KNIGHTS OF. See GARTER. There have been various orders under this denomination, most of which are now extinct; particularly one founded by the emperor Frederick III. in 1470, to guard the frontiers of Bohemia and Hungary against the Turks; another called St. George of Alfama, founded by the kings of Arragon; a third and fourth in Austria and Carinthia, and a fifth in the republic of Genoa, &c.

GEORGE (St.), the largest of the Bermuda Isles, is about fifteen miles in length, and three in breadth; a reef of rocks, which extend some way into the sea, surrounds and greatly protects it. Ships, however, can only approach in two places without great hazard, and here the assistance of an experienced pilot is needful. It is divided into nine parishes, or districts. Long. 63° 30′ W., lat. 32° 45′ N.

GEORGE (St.), a small island in the Pacific Ocean, near the coast of New Ireland, above a league north from Cape St. George.

GEORGE'S (St.), a large and deep bay on the west side of the island of Newfoundland. Lat. 48° 12′ N.

GEORGE'S (St.), a river of the United States, in Maryland, which runs into the Potowmack, twelve miles south-west of Fort Cumberland.

GEORGE'S (St.), a river, or rather an arm of the sea, in the United States, about two leagues south-west of Penobscot Bay. It is navigable for brigs and ships of burden, up to what are called the Narrows, and from thence about four miles higher up, to nearly the head of the tide water, for sloops and schooners of eighty or ninety tons.

GEORGE'S (St.), a cape and island on the coast of East Florida, opposite to the mouth of the Appalachia. The cape is formed by the largest of the islands of this name, and is six leagues east of Cape Blaize, in N. lat. 29° 38.

GEORGE'S (St.), the capital of the island of Grenada, once called Fort Royal, has one of the best harbours in the West Indies. It is divided into two parts, the Bay Town and the Carenage Town, by a remarkable ridge which terminates in the sea. The harbour is fortified, and there is a large old work of the French on a promontory above the town. On the ridge stands the church. The town is altogether pretty well occupied by the principal merchants residing in the Carenaga division: in the Bay town, however, is a handsome square and market place.

GEORGE'S BAY (St.), a bay on the east coast of New Ireland, between Cape St. George and Cape Orford.

GEORGE, CAPE, a cape on the south coast of Kerguelen's Land. Long. 70° 13′ E., lat. 49° 54′ S.—It is also the name of a cape on the coast of Newfoundland. Long. 59° 17′ W., lat. 48° 28′ N., and of another on the coast of Peru. Lat. 23° 50′ S.—Also a cape on the north coast of the island of South Georgia. Long. 36° 32′ W., lat. 54° 17′ S.

GEORGE'S CHANNEL (St.), that part of the Atlantic which runs between Ireland and Wales, or which opens from the Scilly Islands on the south, and the south-east point of Ireland on the north, and up northward between the two lands till it takes the name of the Irish sea. Ships that are bound up St. George's Channel will receive ample instructions, by attending to the rules laid down for avoiding the Scilly Islands, and ensuring a proper entrance into the English channel. Some confine the name of St. George's channel to begin only from the entrance of the narrow sea between the south-east point of Ireland and St. David's head on the coast of Wales, nearly to the east from it; in that case, all the sea to the northward of Scilly hither, is called the Bristol Channel, but in the former it is limited to the opening of the Severn Sea, between Hartland Point on the south and St. Gowan's Point on the north. In some charts the whole of the narrow sea between St. David's Head and the Mull of Galloway is all called St. George's Channel, or the Irish Sea, indifferently.

GEORGE'S CHANNEL (St.), is also a channel along the south-west coast of New Ireland, and extends from Cape St. George to Queen Charlotte's Foreland, and from thence about eight leagues to Portland's Island. This is about 100 leagues or 300 miles. In some part of this channel, near New Britain, the land seems to affect the needle, as the variation was considerably short of 5° E.

GEORGE, FORT, a strong and regular fortress of Scotland, in Inverness-shire. It has several handsome streets of barracks, and is seated on the point of Ardersier, a peninsula running into the frith of Murray. It completely commands the entrance into the harbour of Inverness, and lies opposite to Fortrose, ten miles north-east of Inverness.

GEORGE, FORT, (St.). See MADRAS.

GEORGE LAKE, a lake in the county of Washington, state of New York, about thirty-three miles long, and nearly two broad, discharges itself northward into Lake Champlain, at Ticonderoga. The entire north end is not more than two miles and a half from that lake, towards which the water is said to descend nearly 100 feet. Surrounded by high mountains, and remarkably clear, Lake George is no where excelled in scenery of romantic beauty. The water is also very deep, and the bottom so clean that neither winds or freshets render it turbid. It abounds with the finest fish. Here are also several small islands: Fort George at the north end, and the once famous Fort Ticonderoga, are both now in ruins.

GEORGE, LAKE, a lake of New York south-west of Lake Champlain, thirty-six miles long from north-east to south-west, and from one to seven broad. Its waters are 100 feet higher than those of lake Champlain.

GEORGE, LAKE, also called the Great Lake, in East Florida, is a division of the river St. John. It is about fifteen miles wide.

GEORGE'S TOWN (St.), the principal town of St. George's, one of the Bermudas Islands, in the North Atlantic Ocean, is in lat. 32° 45′ N., and long. 63° 35′ W. It has a good church, town-house and library, and is well fortified.

GEORGIA, a mountainous country of Asia, between the Black Sea and the Caspian, to the north of Armenia, and forming the frontier between Russia and Persia. The Caucasian ranges supply it to the south with fertilising streams, and it unites the products of both the tropical and temperate climates. Mr. Kenneir speaks of it as 'perhaps the most beautiful and highly favored region in the world. The face of the country is diversified with extensive plains, and watered by innumerable rivers; the hills are covered with forests of pine, oak, ash, beech, chestnuts, walnuts, and elms, entwined with vines, growing perfectly wild, and producing vast quantities of grapes. The plains are exceedingly fertile; cotton grows spontaneously, as well as the finest European fruit-trees; and rice, wheat, millet, hemp, and flax, are raised almost without culture. The rivers are full of the most delicious fish: poultry and game may be shot in the woods; and in the hills are to be found mines of gold, silver, and other minerals. Even the natives appear to more perfection than in any other country with which we are acquainted. The men are tall and elegantly formed, whilst the grace and beauty of a Georgian girl are proverbial throughout the East.'

Georgia originally included nearly the whole southern declivity of the Caucasus, and was regarded as extending from the Black Sea to the Caspian. But of late the name has been confined to that part of the region which was once subject to Persia; and which asserted its independence under its native prince, Heraclius, toward the close of the last century. For a short time it was a separate kingdom; but the colossal power of Russia, which was first favorable to its throwing off the yoke of servitude, finally crushed it. It is now a province of the Russian empire, and divided into the four provinces of Cartuel, Kaket or Kacheti, Kisik called sometimes Somchet, and Georgian Armenia. It has been the seat of various wars between Russia and Persia. The capital is Tiflis.

The inhabitants, who are about 370,000, are generally of the Greek church, but there are many Mahommedans among them. Their dress nearly resembles that of the Cossacks; but men of rank frequently wear the habit of Persia. They usually dye their hair, beard, and nails, with red. The women, remarkable for their beauty and fine forms, employ the same color to stain the palms of their hands. On their heads they wear a cap, or fillet, under which their black hair falls on their forehead: behind, it is braided into tresses. Their eye-brows are painted with black, so as to form one entire line, and their faces are frequently coated with white and red. Their robe is often open to the girdle, and their general air and manner are said to be voluptuous. Being generally educated in convents, they can read and write; a qualification very unusual among the men even of some respectability. Girls are betrothed as soon as possible, often at three or four years of age. Travellers accuse the Georgians of drunkenness, superstition, cruelty, and sloth: and the mountains are the haunt of numerous banditti; they are certainly the most powerful body of mountaineers in this neighbourhood. The nobility are numerous, and possess extensive private jurisdiction. See TIFLIS.

GEORGIA, one of the southern United States of America, bounded on the east by the Atlantic Ocean, on the south by East and West Florida, on the west by the Mississippi, and on the north-east and north by South Carolina and Tennessee. It is 270 miles long and 250 broad, containing 620,000 square miles: and is divided into Upper and Lower Georgia, which comprise the following counties and chief towns.

Counties.	Chief Towns.
Baldwin	Milledgeville
Bryan	C. H.
Bullock	Statesburgh
Burke	Waynesborough
Camden	St. Mary's
Chatham	Savannah
Clarke	Athens
Columbia	Applington
Effingham	Ebenezer
Elbert	Petersburg
Emanuel	
Franklin	Carnesville
Glynn	Brunswick
Greene	Greensborough
Hancock	Sparta
Jackson	Jeffersonton
Jasper	Monticello
Jefferson	Louisville
Jones	Clinton
Laurens	Dublin
Liberty	Riceborough
Lincoln	Lincolnton
Madison	Danielsville
M'Intosh	Darien
Montgomery	C. H.
Morgan	Madison
Oglethorpe	Lexington
Pulaski	Hartford
Putnam	Eatonton
Richmond	Augusta
Scriven	Jacksonborough
Tattnal	C. H.
Telfair	C. H.
Twiggs	Marion
Walton	
Warren	Warrenton
Washington	Saundersville
Wayne	C. H.
Wilkes	Washington
Wilkinson	Irwinton.

This state is watered by the Savannah, separating it from South Carolina, the Ogeechee, Alatahama, Satilla, Oakmulgee, Oconee, St. Mary's, Flint, Chatahoochee, Tallapoosa, and Coosa The coast is bordered, for four or five miles inland, with salt marshes, generally uninhabited. In front of them is a chain of islands of a grey rich soil, covered in their natural state with pine, hickory, and live oak, and yielding on cultivation sea-island cotton. The principal of these are Wassaw, Ossabaw, St. Catharine's, Sapello, St. Simon's, Jekyl, and Cumberland. The east part of the state between the mountains, the ocean, and the Savannah and St. Mary's rivers, is an entirely level tract of 120 miles

long from north to south, and from forty to fifty broad, without a single hill or stone. About forty-five miles from the sea coast the lands begin to be uneven, ridges gradually rise into hills, and these into mountains, till they terminate in the Alleghany and Appalachian chains.

The rivers and creeks are generally bordered with marshes, in which are situated rice plantations, mingled with what are called the pine-barrens, which extend from sixty to eighty miles from the sea. Beyond these the country becomes uneven, diversified with hills and mountains, of a strong rich soil, producing cotton, tobacco, maize, wheat, and other grain. The north-western part of the state is mountainous, and abounds in sublime and picturesque scenery.

The soil of Georgia is various; but a large proportion is very productive. At a distance from the sea it changes from gray to red; in some places it is gravelly, but fertile; and farther back in the country its tint is gradually deepened, till it becomes what is called the mulatto soil, consisting of black mould and red earth. This sort of land is generally strong, and affords abundant crops of wheat, tobacco, corn, &c. It is succeeded in its turn by a soil that is nearly black, and very rich, on which are large quantities of black walnut and mulberry. The pine-barrens produce grapes of large size and good flavor. The forests abound in fine oak, pine, hickory, cedar, and mulberry trees. Of fruits are plentiful, figs, melons, oranges, pomegranates, olives, lemons, limes, citrons, pears, and peaches. The exports, which consist chiefly of cotton, rice, lumber, tobacco, canes, deer skins, and maize, amounted, in 1816, to 7,511,939 dollars.

The winters in Georgia are mild and pleasant; snow is seldom seen, nor is vegetation interrupted by severe frosts. There are several valuable mineral springs in this state; one near Washington; one in Jefferson county, twelve miles south-east of Louisville; and another in Madison county, five miles from Danielsville. A considerable part of the territory of this state is in the possession of the Creek and Cherokee Indians, the former inhabiting the south-west and west, and the latter the north-west parts. The seat of government is Milledgeville, but Savannah and Augusta are the largest towns. The other most considerable towns are Washington, Louisville, Darien, St. Mary's, Greensborough, Petersburg, and Sparta.

The legislature consists of a senate and a house of representatives, chosen annually by counties, each county sending one senator, and not less than one, nor more than four representatives. The governor is elected for two years, by a joint vote of both houses. The legislature meets on the second Tuesday in January. The constitution provides for a census of the state to be made once in seven years. Georgia sends six representatives to Congress.

The legislature has established a college at Athens, styled Franklin College, and has made provision for an academy in each county; the college and academies all to be united under the name of the university of Georgia. Great attention is paid to education throughout the state.

The settlement of a colony between the Savannah and Alatamaha was first proposed in England in 1732, for the accommodation of poor emigrants from Great Britain and Ireland, and for the farther security of Carolina. Private compassion and public spirit conspired to promote the benevolent design, and George II. granted letters patent, dated June 9th, 1732, for legally carrying it into execution. The new province was called Georgia, in honor of the king who encouraged the plan. A corporation, consisting of twenty-one persons, was constituted by the name of the Trustees for Settling and Establishing the Colony of Georgia. In November, 1732, 116 settlers were conveyed thither free of expense, furnished with every thing requisite for building and for cultivating the soil. Mr. James Oglethorpe, one of the trustees, and an active promoter of the settlement, embarked as the head and director of these settlers. They arrived at Charlestown early in the following year, and soon began to build a small fort, on the site of the present Savannah, and a number of huts for their defence and accommodation. A treaty of friendship was concluded between the settlers and their neighbours the Creek Indians, and every thing wore the aspect of peace and future prosperity. Afterwards 570 adventurers, among whom were 130 Highlanders, and 170 Germans, were prevailed on to emigrate to Georgia. But the fundamental regulations established by the trustees of Georgia were ill adapted to the circumstances and situation of the settlers. Like other distant legislators, who framed their regulations upon principles of speculation, they were liable to many errors and mistakes; and however good their design, their rules were found impracticable. These, in fact, together with the wars in which they were involved with the Spaniards and Indians, and the frequent insurrections among themselves, threw the colonists into a state of confusion and wretchedness too great for human nature long to endure. Their oppressed situation was represented to the trustees by repeated complaints; till at length, finding that the province languished under their care, and weary with the complaints of the people, the trustees in 1752 surrendered their charter to the king, and it was made a royal government. From this time till the peace of Paris, in 1763, the colony struggled under many difficulties arising from the want of credit, and the frequent molestation of enemies. The good effects of the peace were sensibly felt. It now began to flourish under the care of governor Wright; and within ten years only, from 1763 to 1773, its exports arose from £27,021 to £121,676 sterling. During the American war, Georgia was over-run by the British, and the inhabitants were obliged to flee into the neighbouring states for safety. Since the period of the independence of the states, the population, agriculture, and commerce, have increased with astonishing rapidity, though they have been occasionally retarded by the hostile irruptions of the Indians. In 1789 the constitution was new-modelled upon a plan similar to that of the other states, and in 1790, a pretty firm treaty of peace was concluded between the United States

and the Indians. In 1817 the population was 309,440 of whom 133,459 were blacks.

GEORGIA, GULF OF, is a large gulf of the north Pacific Ocean, between the continent of North America and Quadra and Vancouver's Island. Captain Vancouver describes upwards of twenty ports in the gulf of Georgia, of which the easiest of access is Port de los Angelos, or Port Discovery, on the south shore. In the gulf are a number of islands, in general less rugged and barren than the main land, which for the most part is extremely desolate, the naked rocky mountains rising abruptly from the shores, and vast torrents from the melted snows tumbling down their sides. The entire gulf is about 120 miles long from north to south, and varying from six to twenty miles in breadth.

GEORGIA NEW or SOUTH, ISLAND, was discovered by La Roche in 1675, but its extent was not ascertained until 1776, when Cook visited it. It presents nothing but mountains raising their heads to the clouds, and surmounted by glaciers, while the valleys are covered with perpetual snow. A strong bladed grass in tufts, and some small shrubs, is the only vegetation. The dung of an animal, supposed to be a fox, was the only indication of the existence of quadrupeds, and the only land bird seen was the lark. The atmosphere is enveloped in constant mist, which, together with the numerous detached islets and rocks, renders the navigation perilous. Sandwich Bay, near the middle of the land, is in 54° 42′ S., 36° 12′ W.

GEORGIC, *n. s.* & *adj.* Gr. γη and εργον, a work. A description of agricultural pursuits: applied particularly to poems of Hesiod and Virgil.

GEORGIO MAGGIORE (St.), an island of the Adriatic near Nancy, and containing one of the noblest Benedictine establishments in Italy. The church is particularly handsome, and contains the tombs of several of the Venetian doges.

GEORGIUM SIDUS, or the Georgian Planet, the name given by Herschel to the planet which he discovered. It is also sometimes called Uranus, but more generally Herschel, in compliment to its discoverer. See ASTRONOMY and HERSCHEL. Foreign astronomers have already named this planet Herschel, after its discoverer.

GEPIDÆ, GEPIDES, or GEPIDI, in ancient geography, according to Procopius, were a Gothic people, some of whom, in the migration of the Goths, settled in an island at the mouth of the Vistula, which they called Gepidos after their own name, which denotes lazy or slothful; others in Dacia, calling their settlement there Gepidia.

GERA, a town of Saxony, in the Vogtland and on the White Elster River. It is the capital of a district belonging to the counts of Reuss, and surrounded by walls. The streets are straight and regular, having been almost entirely rebuilt after a fire in 1780. It is a considerable manufacturing town in woollen and cotton cloths, and has a provincial school. Population 7500. Thirty miles S. S. W. of Leipsic, and sixty-eight west of Dresden.

GERANIUM, crane's bill, in botany, a genus of the decandria order, and monadelphia class of plants; natural order fourteenth, gruinales. Its characters are these:—the flower has a permanent empalement, composed of five small oval leaves, and five oval or heart-shaped petals, spreading open, which are in some species equal, and in others the two upper are much larger than the three lower. It has ten stamina, alternately longer than each other, but shorter than the petals, and terminated by oblong summits. In the bottom of the flower is situated a five-cornered germen, which is permanent. The flower is succeeded by five seeds, each being wrapped up in the husk of the beak, where they are twisted together at the point, so as to form the resemblance of a stork's beak. There are above forty species. The common wild sorts, and those which are brought from the colder climates, are hardy enough, and require little care; but the African species, and the others from hot countries which make so very beautiful a figure in our green houses, require great care in their culture and propagation. These may be propagated by seed, which should be sown towards the end of March in beds of light earth, carefully shading them from the sun, and giving them frequent, but gentle waterings, till they are well rooted. The mats with which these beds are covered are to be taken off in gentle showers, and always in the hot weather at nights, that the plants may have the benefit of the dew. They should remain about two months in this bed, by which time they will have taken root. Some pots of about seven inches wide should then be filled with light earth, and the plants taken up with as much as possible of their own earth about them, and planted severally in the middle of these pots; when they are to be set in a shady place, and watered at times till they have taken root. When well rooted, they should be set in a more exposed place to harden them, and should stand out till the middle of October; but, when the mornings begin to grow frosty, they must be removed into the green-house, and then placed as near the windows as possible, and the windows should be opened upon them till the weather is very cold. During the winter they must be often watered a little at a time, and their dead leaves should be pulled off. They must not stand under the shade of other plants, nor near any artificial heat. Those who wish that their plants should be large and flower soon, sow the seeds on a moderate hot-bed in the spring; when they are come up, they should not be drawn weak, and the pots into which they are transplanted should be plunged into another moderate hot-bed; shading them from the sun till they have taken root, and gradually inuring them to the open air, into which they should be removed in the beginning of June, and placed in a sheltered situation with other exotic plants. The shrubby African geraniums are commonly propagated by cuttings, which planted in a shady border, in June or July, will take good root in five or six weeks; and they may then be taken up and planted in separate pots, placing them in the shade till they have taken new root; after which they may be removed into a sheltered situation, and treated as the seedling plants.

GERAR, or GERARA, in ancient geography, the south boundary of Canaan near Berseba;

situated between Cades and Zur: two deserts, the one facing Egypt and the other Arabia Petræa.

GERARD (Alexander), D.D., professor of divinity in King's College, Aberdeen, was born in 1728. He received the rudiments of his education at Foveran, and Aberdeen; and at twelve years of age entered student at Marischal College, and in four years afterwards was admitted A.M: after which he studied theology at the universities of Aberdeen and Edinburgh. Having been licensed to preach, in 1748, he was chosen assistant to professor Dr. Fordyce in 1750, and was appointed his successor, in 1752. On the 5th of September, 1759, he was ordained a minister of the church of Scotland: on the 11th of June, 1760, he was appointed professor of divinity in the Marischal College, and minister of the Gray-friars church at Aberdeen; and about the same time he was created D.D. On the 18th June, 1771, he resigned both these offices, and was appointed professor of divinity in King's College; which situation he held till 1795, when, having just entered his sixty-eighth year, he died of a schirrous tumor in his face. He was the author of, 1. An Essay on Taste: 8vo. 1759. 2. Dissertations on subjects relating to the genius and Evidences of Christianity, 8vo. 1766. 3. An Essay on Genius, 8vo. 1774. 4. Several Sermons on various subjects, published from 1760 to 1782; and, 5, A part of his theological course, entitled The Pastoral Care, published in 1799, by his son, Dr. Gilbert Gerard, who succeeded him in his professorship. His Essay on Taste gained the gold prize medal given by the Philosophical Society of Edinburgh in 1756. Dr. Gilbert Gerard also published 1. On Indifference with respect to Religious Truths, a sermon, 8vo. 2. Institutes of Biblical Criticism, 8vo., dedicated to Dr., now bishop, Herbert Marsh.

GERARD (Tung, or Tom), founder and first grand master of the knight's hospitallers of St. John, or knights of Malta, was born at Amalfi in Italy, in the eleventh century. In A.D. 1100 he assumed a religious habit, with a white cross on the breast, and, with many others, engaged in vows of chastity, poverty, and to relieve all Christians in distress, &c. He died in 1120, and was succeeded as grand master by Raymond du Puy. See MALTA.

GERARDE (John), an English surgeon and botanist, was born at Nantwich, in Cheshire, in 1545. He practised professionally as a surgeon in London, where also he became gardener to lord Burleigh; he himself had also a large botanic garden in Holborn, of which he published a catalogue in 1596. His great work is his Herbal, printed in 1597, and re-published by Dr. Thomas Johnson, in 1636, folio. Gerarde died in 1607.

GERARDIA, in botany, a genus of the angiospermia order, and didynamia class of plants; natural order fortieth, personatæ. CAL. quinquefid: COR. bilabiate; the under lip tripartite; the side lobes emarginated, and the middle one bipartite: CAPS. bilocular and gaping. Species one; a native of Africa.

GERBIER (Sir Balthazar), a painter of Antwerp, born in 1592, who distinguished himself by painting small figures in distemper. King Charles I. was so pleased with his performances that he invited him to court, where he was in great favor. He was knighted, and sent to Brussels, where he long resided as agent for that monarch.

GERBILLON (John Francis), one of the most celebrated of the Jesuit missionaries in China, was born in 1654. He was in great favor with the emperor, for whom he composed two books on geometry, printed at Pekin in the Chinese and Tartarian languages. He wrote also Historical Observations on Great Tartary, and an Account of some of his Travels, inserted in Du Halde's History of China. He died at Pekin, superior general of all the missions in China.

GERFALCON, *n.s.* Fr. *gerfault*. A bird of prey of the greatest strength next to the eagle.

GERFALCON. See FALCO.

GERGESA, in ancient geography, a Transjordan town, no otherwise known than by the Gergesenes of St. Matthew, Gergesæi of Moses; supposed to have stood in the neighbourhood of Gadara, and near the sea of Tiberias.

GERGESÆI, or GERGESENES, one of the seven ancient nations of Canaan, less frequently mentioned than the rest. They appear to have been less considerable and more obscure: their name is from Girgasi, one of Canaan's sons. See GIRGASHITES.

GERINA, or CERINA, a town on the northern coast of the island of Cyprus. The wall about half a mile in circumference, was formerly strong; but the greater part of it as well as the port is now in ruins. On the east side of the harbour stands a lofty castle, erected by the Venetians; and defended by four guns. The trade is inconsiderable, and the place does not contain above 1500 families. Sixteen miles N.N.W. of Nicosia.

GERISM, GERIZIM, or GARIZIM, in ancient geography, a mountain of Samaria, at the foot of which stood Shechem; famous for the temple built on it by Sanballat, in favor of his son-in-law Manasseh, by the permission of Alexander the Great; and destroyed 200 years after, by John Hyrcanus, son of Simon, the fourth in succession of the Asmoneans. *Josephus.*

GERMAIN, or ST. GERMAIN, a town of France, in the department of the Seine and Oise, and ci-devant province of the Isle of France. It has a magnificent palace, embellished by Louis XIV., who was born in it, with a fine forest and elegant gardens, &c., long the asylum of king James II. Several kings of France were born here. It is seated on the Seine, twelve miles north-west of Paris.

GERMAINS (St.), a borough of England, in Cornwall, formerly the largest town in the county, and a bishop's see. Part of the old cathedral is used as the parish church, and the priory is still standing. It is ten miles west of Plymouth, and 224 west by south of London.

GERMAN, *n.s.* & *adj.* Fr. *germain*; Latin *germanus*. Brother; one approaching to a brother in proximity of blood: thus the children of brothers or sisters are called cousins german, the only sense in which the word is now used.

And to him said, go now, proud miscreant,
Thyself thy message do to *german* dear.
Spenser. Faerie Queene.

Wert thou a bear, thou wouldst he killed by the horse; wert thou a horse, thou wouldst be seized by the leopard; wert thou a leopard, thou wert *german* to the lion, and the spots of thy kindred were juries on thy life. *Shakspeare. Timon.*

Not he alone shall suffer what wit can make heavy, and vengeance make bitter; but those that are *german* to him, though removed fifty times, shall come under the hangman. *Shakspeare.*

You'll have your nephews neigh to you; you'll have coursers for cousins, and genets for *germans*. *Id.*

They knew it was their cousin *german*, the famous Amphialus. *Sidney.*

GERMAN OCEAN, otherwise called the North Sea, an extensive branch of the Atlantic on the north-west coast of Europe, bounded on the south by the straits of Calais, and on the north by the Orkney and Shetland Islands. The waters of this sea are salter than those of the Baltic, but less so than those of the main Ocean, and they contain a large portion of unctuous matter, and marine plants. The fisheries on the Dogger Bank, as well as on the shores that bound this sea, viz. those of Britain, Holland, Denmark, and Norway, are extensive: they are still greater northward i. e. in the direction of the Orkney and Shetland Islands. This has accordingly been the nursery for seamen in Europe. Throughout its whole extent the tides prevail, but rise highest on the coasts of Lower Saxony and Holland, where the formation of the Zuyder Zee in the thirteenth century, by a great eruption, and the destruction of a whole island on the coast of Sleswick in 1634, were awful proofs of their power.

The German Ocean may be considered as divided into two unequal parts by the Dogger Bank, which traverses it in almost all its width, and is traditionally said to have been formerly a tract of dry land, joined to Jutland. The extent of this sea from south to north, between the parallels of latitude quoted above, is reckoned by Mr. Stevenson at 233 leagues, and its greatest breadth from west to east, from St. Abb's-Head, on the coast of Scotland, to Ring Kiobing Froid, on the opposite shore of Denmark, at 135 leagues. The greatest depth of the water in this basin seems to be upon the Norwegian side, where the soundings give 190 fathoms; but the mean depth of the whole may be stated at only about thirty-one fathoms.

The water gradually deepens from south to north, varying, after an irregular progression, from 120 fathoms towards the northern extremity to fifty-eight, thirty-eight, twenty-four and eighteen fathoms, as we proceed southwards, to within five miles of the shore, and the whole bottom preserving the character of a great bay encumbered with numerous sand-banks. These great accumulations of debris, especially in the middle or central parts, and along the shores towards what may be termed the apex of the bay, extend from the river Thames along the shores of Holland, &c., to the Baltic. One of these great central banks, known to mariners as the Long Forties, tends north-east in the direction of the ebb-tide from the entrance of the Frith of Forth no less than 110 miles, while the Denmark and Jutland banks may also be traced from the entrance of the Baltic, upwards of 105 miles in a north-western direction. Besides these, we have also that other great central range of banks known under the common appellation of the Dogger Bank, which is subdivided by the navigator into the Long-Bank, the White-Bank, and the Well-Bank, including an extent of upwards of 354 miles from north to south. There are also a vast number of shoals and sand-banks, lying wholly to the southward of our section, between Flamborough-Head and Heligoland. Altogether, therefore, the superficies of these extensive banks is found to occupy no inconsiderable portion of the whole area of the German Ocean; the surface of which, in making these investigations, has been estimated to contain about 153,709 square miles, while the aggregate superficial contents of the sand-banks alone amount to no less than 27,443 square miles, or include an area of about five and three quarters of the whole surface of this Sea.

On the temperature of the German Ocean, the following observations were made in 1821 by Mr. John Murray:—

		Temperature. Fahr.
Feb. 22.	Seven miles off Huntley Foot, (River Tees), depth forty fathoms, at 10^h 30′ A. M.	42°
	Four miles off Red Cliff (to southward), depth, say thirty-five fathoms, at 10 o'clock P. M.	40·75
	Three miles off Whitby, depth twenty-eight fathoms, at 4^h 22′ A. M.	41
Feb. 23.	Two miles off Kelsey, depth seven fathoms, at 8 o'clock A. M.,	37·5
	Two miles off Spurn Lights, depth 7·25 fathoms, at 9^h 22′ A. M.	38
	Three miles off Spurn Lamps, mouth of the Humber, depth seven fathoms, 10 o'clock P. M.	38
Feb. 24.	In the Humber, three miles from Hull, at 9 o'clock A. M.	35·75

GERMANIA, in ancient geography, an extensive country of Europe, bounded on the north by the Baltic (Mare Suevicum), on the east by the Vistula, on the south by the Danube, and on the west by the Rhine and the German Ocean. The origin of the name has been much disputed, but the most probable derivation is from 'ghar man' (Celtic, a warlike man) from Teut. geier, or guer, a sword, whence Span. guerra; Fr. guerre, war. Many of the best authorities however derive it from Lat. germanus, a relative, as having been given by the Celts, who were probably sprung from the same stock, viz. the Gomerians. The Romans divided Germania into two regions, viz. Germania Superior, and Germania Inferior, which were separated only by the Rhine.

Germania Superior, or Upper Germany, comprised the whole country between the Rhine and

the Danube. Between the Rhine and Elbe were the following nations:—1. The Chauci, Upper and Lower, who were divided from each other by the river Visurges, now the Weser. Their country contained what is now called Bremen, Lunenburg, Friesland, and Groningen. The Upper Chauci had the Cherusci, and the Lower the Chamavi on the south-east, and the German Ocean on the north-west. 2. The Frisii, Upper and Lower, were divided from the Lower Chauci by the river Amisia, now the Ems; and from one another by an arm of the Rhine. Their country still retains the name of Friesland. 3. Beyond the Isela (now the Yssel), which bounded the country of the Frisii, were situated the Bructeri, who inhabited that tract now called Broecmorland; and the Marsi, about the river Luppe. On the other side of that river were the Usippii, or Usipites; but these were famed for often changing their territories, and therefore found in other places. 4. Next to these were the Juones, or inhabitants of Juliers, between the Maese and the Rhine. 5. The Catti, another ancient and warlike nation, inhabited Hesse and Thuringia, from the Hartz Mountains to the Rhine and Weser; among whom were comprehended the Mattiaci, whose capital is by some thought to be Marpurg, by others Baden. 6. Next to these were the Seducii, bordering upon Suabia; Narisci, or the ancient inhabitants of Northgow, whose capital was Nuremberg; and the Marcomanni, whose country anciently reached from the Rhine to the head of the Danube, and to the Neckar. The Marcomanni afterwards settled in Bohemia and Moravia, under their general or king Maroboduus, and some of them in Gaul, whence they drove the Boii, who had seated themselves there. 7. On the other side of the Danube, and between the Rhine and that river, were the Hermunduri, who possessed the country now called Misnia in Upper Saxony; though some make their territories to have extended much further, and to have reached to, or even beyond, Bohemia, then the seat of the Boii, whence its name. 8. Beyond them, on the north of the Danube, was another seat of the Marcomanni, along the river Albis, or Elbe. 9. Next to Bohemia were situated the Quadi, whose territories extended from the Danube to Moravia, and the northern part of Austria. These are comprehended under the ancient name of Suevi; part of whom at length forced their way into Spain, and settled a kingdom there. 10. Eastward of the Quadi were situated the Bastarnæ, and parted from them by the Granna, now Gran, a river that falls into the Danube; and by the Carpathian Mountains, from them called Alpes Bastarnicæ. The country of the Bastarnæ indeed made part of the European Sarmatia, and was therefore without the limits of Germany, properly so called; but we find these people so often in league with the German nations, and joining them for the destruction of the Romans, that we cannot but account them as one people. Between those nations, seated along the other side of the Danube and the Hercynian forest, were several others whose exact situation is uncertain, viz. the Martigni, Burii, Borades, Lygii, or Logiones, and some others, who are placed by geographers along the forest above-mentioned, between the Danube and the Vistula.

On this side the Hercynian forest were the famed Rhætii (now Grisons), seated among the Alps. Their country, which was also called Western Illyricum, was divided into Rhætia Prima, or Propria, and Secunda; and was then of much larger extent, spreading itself towards Suabia, Bavaria, and Austria. On the other side of the Hercynian forest were, 1. The Suevi, who spread themselves from the Vistula to the river Elbe. 2. The Longobardi, so called, according to some, on account of their wearing long beards; but according to others, on account of their consisting of two nations, viz. the Bardi and Lingones. These dwelt along the river Elbe, and bordered southward on the Chauci above-mentioned. 3. The Burgundi, possessing a part of Poland. 4. The Semnones, who, about the time of Tiberius, were seated on the river Elbe. 5. The Angles, Saxons, and Goths, were probably the descendants of the Cimbri; and inhabited the countries of Denmark, along the Baltic Sea, and the peninsula of Scandinavia, containing Norway, Sweden, Lapland, and Finmark. 6. The Vandals were a Gothic nation, who, proceeding from Scandinavia, settled in the countries now called Mecklenburgh and Brandenburgh. 7. Of the same race were the Dacians, who settled themselves in the neighbourhood of Palus Mæotis, and extended their territories along the banks of the Danube.

Germania Inferior, or Lower Germany, lay between the Seine and the Rhine; and in this we find a number of different nations, the most remarkable of which were the following:—1. The Ubii, whose territory lay between the Rhine and the Mosa (or Maese), and whose capital was Cologne. 2. Next to them were the Tungri, supposed to be the same whom Cæsar calls Eburones and Condrusi; and whose metropolis, then called Attuatica, has since been named Tongres. 3. Higher up from them, and on the other side of the Moselle, were the Treviri, whose capital was Augusta Trevirorum, now Triers. 4. Next to them were the Tribosci, Nemotes, and Vangiones. The former dwelt in Alsace, and had Argentoratum, now Strasburg, for their capital: the others inhabited the cities of Worms, Spire, and Mentz. 5 The Mediomatrici were situated along the Moselle, about the city of Metz in Lorraine: and above them were situated another German nation, named Raurici, Rauraci, or Rauriaci, who inhabited that part of Helvetia above Basil. To the west and south of these were the Narvi, Suessones, Silvanectes, Leuci, Rhemi, Lingones, &c., who inhabited Belgic Gaul. Between the heads of the Rhine and Danube was seated the ancient kingdom of Vindelicia, whose capital was called Augusta Vindelicorum, now Augsburg. Below it, on the banks of the Danube, were the kingdoms of Noricum and Pannonia. The first of these was divided into Noricum Ripense and Mediterraneum. It contained a great part of the provinces of Austria, Styria, Carinthia, Tyrol, Bavaria, and some others of less note. The latter con-

tained the kingdom of Hungary, divided into Upper and Lower; and extending from Illyricum to the Danube, and the mountains Cætii in the neighbourhood of Vindebona, now Vienna.

The Germans did not begin to build towns of any consideration till after the arrival and settlement of the Romans, by whom the following towns were either built or enlarged, and received from them their names:—

Colonia Ubiorum, or Agrippina, now called	Cologne.
Colonia Ulpiana . .	Cleves.
Argentoratum . . .	Strasburg.
Vindobona . . .	Vienna.
Regenopolis . . .	Ratisbon.
Berolinum . . .	Berlin.
Herbipolis . . .	Wurzburg.
Bonna Julia . . .	Bonne.
Confluentes . . .	Coblentz.
Augusta Vindelicorum .	Augsburgh.
Colonia Trevirorum . .	Triers, or Treves.
Moguntiacum . . .	Mentz.
Neroberga, &c. . .	Nurenberg, &c.

The following are the rivers, &c., known to the ancients as well as the moderns:—

Lacus Brigantinus	Lake of Constance.
Sinus Codanus .	The Baltic.
Ister vel Danubius .	The Danube, or Ister.
Rhenus . .	The Rhine.
Vistula . .	The Weichsel, or Vistula.
Nicer . . .	The Necker.
Albis . . .	The Elbe.
Amisia . .	The Ems.
Visurgis . .	The Weser.
Dravus, vel Drabus	The Drave.
Mœnus . .	The Maine.
Luppia, &c. .	The Lippe, &c.

The principal mountains and forests mentioned by the ancients are,

Jugum Hercynæum .	The Bohemian Forest.
Bacenis, vel Semana Sylva	The Hartz.
Martiana Sylva . .	The Black Forest.
Sæsia Sylva . .	The Odenwald.
Abnoba . . .	Abenow.
Mons Rhæticus . .	The Sieben-bergen.
Taunus, &c. . .	The Hayrich, &c.

The ancient history of the Germans is altogether wrapped in obscurity; nor do we, for many ages, know any thing more of them than what we learn from the history of their wars with the Romans. The first time they are mentioned by the Roman historians is about A. A. C. 211, when Marcellus subdued Insubria and Liguria, and defeated the Gæsatæ, a German nation, situated on the banks of the Rhine. From this time history is silent with regard to all these northern nations, till the eruption of the Cimbri and Teutones, who inhabited the most northerly parts of Germany. See Rome. We also find mention made of the Scordisci, a Thracian nation, who afterwards settled on the banks of the Danube. About A. A. C. 113 they ravaged Macedon, and cut off a whole Roman army sent against them; the general, M. Porcius Cato, grandson to Cato the censor, being the only person who escaped. After this they ravaged all Thessaly, and advanced to the coasts of the Adriatic, into which, because it stopped their further progress, they discharged a shower of darts. By another Roman general however they were driven back into their own country with great slaughter; and, soon after, Metellus so weakened them by repeated defeats, that they were incapable, for some time, of making any more attempts on the Roman provinces. At last, in the consulship of M. Livius Drusus and L. Calpurnius Piso, the former prevailed on them to pass the Danube, which thenceforth became the boundary between the Romans and them. Notwithstanding this, in the time of the Jugurthine war, the Scordisci repassed the Danube on the ice every winter, and being joined by the Triballi, a people of Lower Mæsia, and the Daci of Upper Mæsia, penetrated as far as Macedon, committing every where dreadful ravages. Till the time of Julius Cæsar, however, we hear nothing more concerning the Germans.

About A. A. C. 58 Cæsar undertook his expedition into Gaul, during which his assistance was implored by the Ædui against Ariovistus, a German prince, who oppressed them. Cæsar, pleased with this opportunity of increasing his power, invited Ariovistus to an interview; but, this being declined, he next sent deputies, desiring him to restore the hostages he had taken from the Ædui, and to bring no more troops over the Rhine into Gaul. To this a haughty answer was returned; and a battle soon after ensued, in which Ariovistus was entirely defeated, and with great difficulty made his escape. In A. A. C. 55, Cæsar having subdued the Suessones, Bellovaci, Ambiani, Nervii, and other nations of Belgic Gaul, hastened to oppose the Usipetes and Tencteri. These nations, having been driven out of their own country by the Suevi, had crossed the Rhine with a design to settle in Gaul. As soon as he appeared, the Germans sent him a deputation, offering to join him, provided he would assign them lands. Cæsar replied, that there was no room in Gaul for them; but he would desire the Ubii to give them leave to settle among them. Upon this, they desired time to treat with the Ubii; but in the mean time fell upon some Roman squadrons, which so provoked Cæsar, that he immediately marched against them, and, coming unexpectedly upon them, defeated them with great slaughter. They fled in the utmost confusion; but the Romans pursued them to the conflux of the Rhine and the Maese, where the slaughter was renewed with such fury, that about 400,000 of the Germans perished. After this, Cæsar, being resolved to spread the terror of the Roman name through Germany, built a bridge over the Rhine, and entered that country. In this expedition, however, which was his last in Germany, he performed no remarkable exploit.

Nothing further is recorded of the Germans till about A. A. C. 17, when the Tencteri made an irruption into Gaul, and defeated M. Lollius, proconsul of that province. At last, however, they were repulsed, and forced to retire with great loss beyond the Rhine. Soon after this the Rhætii invaded Italy, where they committed the greatest devastations, putting all the males they met to the sword, without distinction of age; and, when they happened to take women with

child, they consulted their augurs to know whether the child was a male or female; and if they pronounced it a male, the mother was immediately massacred. Against these barbarians was sent Drusus, the second son of Livia, a youth of extraordinary valor, and great accomplishments. He brought them to a battle, in which the Romans proved victorious, and cut in pieces great numbers of them with very little loss. Those who escaped the general slaughter, being joined by the Vindelici, took their rout towards Gaul, with a design to invade that province. But Augustus, upon the first notice of their march, despatched against them Tiberius, with several chosen legions. He was no less successful than Drusus had been; for having transported his troops over the lake Brigantium (now Constance) he fell unexpectedly on the enemy, gave them a total overthrow, took most of their strong holds, and obliged the whole nation to submit to his own terms. Tiberius, to keep the conquered countries in awe, planted two colonies in Vindelicia, and opened from thence a road into Rhætia and Noricum. One of the cities which he built for the defence of his colonies he called, from his father Drusus, Drusomagus; the other by the name of Augustus, Augusta Vindelicorum. He next encountered the Pannonians, who had been subdued by Agrippa, but revolted on hearing the news of that great commander's death, which happened A. A. C. 11. Tiberius, however, with the assistance of the Scordisci, soon forced them to submit. They delivered up their arms, gave hostages, and put the Romans in possession of all their towns and strong holds. Tiberius spared their lives, but laid waste their fields, plundered their cities, and sent the finest of their youth into other countries. In the mean time Drusus, having prevented the Gauls from revolting, prepared to oppose the Germans who dwelt beyond the Rhine. They had collected the most numerous and formidable army that had ever been seen in those parts; with which they were advancing towards the Rhine, to invade Gaul. Drusus, however, defeated them, as they attempted to cross that river; and, pursuing his advantage, entered the country of the Usipetes, now Relinchusen, and thence advanced against the Sicambri, in the neighbourhood of the Lyppe and Yssel. Them he overthrew in a great battle, laid waste their country, burnt most of their cities, and, following the course of the Rhine, approached the German Ocean, reducing the Frisii and the Chauci between the Ems and the Elbe. In these marches the troops suffered extremely for want of provisions; and Drusus himself was often in great danger of being drowned, as the Romans who attended him were quite unacquainted with the flux and reflux of the tide. The Roman forces went into East Friesland for winter quarters; and next year (A. A. C. 10) Drusus marched against the Tencteri, whom he easily subdued. Afterwards, passing the Lupias (now the Lyppe), he reduced the Catti and Cherusci, extending his conquests to the banks of the Visurgis (or Weser); which he would have passed, had he not been in want of provisions, the enemy having laid waste the whole country. As he was retiring, the Germans unexpectedly fell upon him in a narrow passage, and, having surrounded the Roman army, cut a great number of them in pieces. But Drusus having animated his men, after a bloody conflict, which lasted the whole day, the Germans were defeated with such slaughter, that the ground was strewed for several miles with dead bodies. Drusus found in their camp a great quantity of iron chains, which they had brought for the Romans; and so great was their confidence, that they had agreed before hand about the division of the booty. After this victory, Drusus built two forts to keep the conquered countries in awe; the one at the confluence of the Lyppe and the Alme, the other in the country of the Catti on the Rhine. He also made a famous canal, called in honor of him Fossa Drusiana, to convey the waters of the Rhine into the Sala. It extended eight miles, and was very convenient for conveying the Roman troops by water to the countries of the Frisii and Chauci. The following year (A. A. C. 9) Augustus, bent on subduing the whole of Germany, advanced to the banks of the Rhine, attended by Tiberius and Drusus. The former he sent against the Daci, who lived up to the south of the Danube; and the latter to complete the conquest he had so successfully begun in the western parts of Germany. The former easily overcame the Daci, and transplanted 40,000 of them into Gaul. The latter, having passed the Rhine, subdued all the nations from that river to the Elbe; but, having attempted in vain to cross this last, he set out for Rome: an end, however, was put to his conquests and his life by a violent fever, with which he was seized on his return.

After the death of Drusus, Tiberius again overran all those countries in which Drusus had spent the preceding summer; and struck some of the northern nations with such terror, that they sent deputies to sue for peace. This, however, they could not obtain upon any terms; the emperor declaring that he would not conclude a peace with one, unless they all desired it. But the Catti, or according to some the Sicambri, could not be prevailed upon to submit; so that the war was carried on, though in a languid manner, for about eighteen years. During this period, some of the German nations had quitted their forests, and began to live in a civilised manner under the protection of the Romans; but Quinctilius Varus being sent to command the Roman forces in that country, he so provoked the inhabitants by his extortions, that not only those who still held out refused to submit, but even the nations that had submitted were seized with an eager desire of throwing off the yoke. Among these was a young chieftain of extraordinary skill and valor, named Arminius. He was the son of Sigimer, one of the most powerful chiefs among the Catti, had served with great reputation in the Roman armies, and been honored by Augustus with the privileges of a Roman citizen, and the title of knight. But, his patriotism and ambition prevailing over his gratitude, he resolved to improve the general discontent among his countrymen, to deliver them from the Roman yoke. With this view he engaged the leading men of all the nations between

the Rhine and the Elbe, in a conspiracy against the Romans. To put Varus off his guard, he advised him to show himself to the inhabitants of the more distant provinces, administer justice among them, and accustom them to live after the Roman manner. Varus, being a man of a peaceable temper, readily consented to this insidious proposal; and, leaving the neighbourhood of the Rhine, marched into the country of the Cherusci. Having there spent some time in hearing causes, Arminius persuaded him to weaken his army, by sending out detachments to clear the country of robbers. This done, some distant nations of Germany rose up in arms by Arminius's directions; while those through which Varus was to pass in marching against them, pretended to be in a state of tranquillity, and ready to join the Romans against their enemies. On the first news of the revolt, Varus marched against the enemy with three legions and six cohorts; but, being attacked by the Germans as he passed through a wood, his army was almost totally cut off, while he himself and most of his officers fell by their own hands.

This terrible overthrow, though it raised a general consternation in Rome, did not, however, cause Augustus to abandon his enterprise. About two years after (A. D. 12) Tiberius and Germanicus were appointed to command in Germany. The death of Augustus, which happened soon after, prevented Tiberius from going on his expedition; and Germanicus was for some time hindered from proceeding in his, by a revolt of the legions, first in Pannonia, and then in Germany. About A. D. 15 Germanicus, having brought over the soldiers to their duty, laid a bridge across the Rhine, over which he marched 12,000 legionaries, twenty-six cohorts of the allies, and eight alæ (squadrons of 300 each) of horse. With these he first traversed the Cœsian forest (part of the Hercynian, supposed to lie partly in the duchy of Cleves, and partly in Westphalia). On his march he was informed, that the Marsi were celebrating a festival with great mirth and jollity. Upon this he advanced with such expedition, that he surprised them in the midst of their debauch; a terrible massacre ensued, and the country was destroyed with fire and sword for fifty miles round, without the loss of a single man on the part of the Romans. This general massacre roused the Bructeri, the Tubantes, and the Usipetes; who, besetting the passes through which the Roman army was to return, fell upon the rear, and put them into disorder; but the Romans soon recovered themselves, and defeated the Germans with considerable loss. The following year, (A. D. 16) Germanicus, taking advantage of some intestine broils which happened among the Catti, entered their country, where he put great numbers to the sword. Most of their youth, however, escaped by swimming over the Adrana (now the Eder), and attempted to prevent the Romans from laying a bridge over that river: but, being disappointed in this, some of them submitted to Germanicus, while the greater part, abandoning their villages, took refuge in the woods; so that the Romans, without opposition, set fire to all their towns and villages; and, having burnt their capital, began their march back to the Rhine. Germanicus had scarcely reached his camp, when he received a message from Segestes, a German prince, in the interest of the Romans, acquainting him that he was besieged in his camp by Arminius. On this he instantly marched against the besiegers, entirely defeated them, and took a great number of prisoners; among whom was Thufneldis, the wife of Arminius, and daughter of Segestes, whom the former had carried off, and married against her father's will. Arminius enraged by the loss of his wife, whom he tenderly loved, stirred up all the neighbouring nations against the Romans. Germanicus, to avoid engaging such numerous forces at once, detached his lieutenant Cæcina, at the head of forty cohorts, into the territories of the Bructeri; his cavalry, under the command of Pedo, entered the country of the Frisii; while he himself embarked the remainder of his army, consisting of four legions, on a neighbouring lake; and transported them by rivers and canals to the place appointed on the Ems, where the three bodies met. In their march they found the sad remains of the legions conducted by Varus, which they buried with all the ceremony their circumstances could admit. After this they advanced against Arminius, who retired and posted himself advantageously close to a wood. The Roman general, coming up with him, ordered his cavalry to advance and attack the enemy. Arminius, at their first approach, pretended to fly; but suddenly wheeled about, and giving the signal to a body of troops, whom he had concealed in the wood, to rush out, obliged the cavalry to give ground. The cohorts then advanced to their relief; but they too were put into disorder, and would have been pushed into a morass, had not Germanicus himself advanced with the rest of the cavalry to their relief. Arminius did not think it prudent to engage these fresh troops, but retired in good order; upon which Germanicus also retired towards the Ems. Here he embarked with four legions, ordered Cæcina to reconduct the other four by land, and sent the cavalry to the sea-side, with orders to march along the shore to the Rhine. Though Cæcina was to return by roads well known, yet Germanicus advised him to pass, with all possible speed, a causeway, called the long bridges, which led across vast marshes, surrounded on all sides with woods and hills. But Arminius, having got notice of this, arrived at the long bridges before him, and filled the woods with his men; who, on the approach of the Romans, rushed out, and attacked them with great fury. The legions, unable to manage their arms in the marshy ground, were obliged to yield; and would have been entirely defeated, had not night put an end to the combat. The Germans, encouraged by their success, instead of sleeping spent the whole night in diverting the courses of the rivulets which rose in the neighbouring mountains; so that, before day, the camp of the Romans was laid under water, and their works were overturned. Cæcina at last resolved to attack the enemy by day-break, and, having driven them to their woods, to keep them there till the baggage and wounded men should pass

the causeway, and get out of the enemy's reach. But when his army was drawn up, the legions posted on the wings deserted their stations, and occupied a field beyond the marshes. Cæcina followed them, but the baggage stuck in the mire, as he attempted to cross the marshes, which greatly embarrassed the soldiers. Arminius, perceiving this, began the attack, and crying out, 'This is a second Varus, the same fate attends him and his legions,' fell on the Romans with inexpressible fury. As he had ordered his men to aim chiefly at the horses, great numbers of them were killed; and, the ground becoming slippery with their blood, the rest either fell or threw their riders, and galloping through the ranks, put them in disorder. Cæcina distinguished himself greatly, but his horse being killed he would have been taken prisoner, had not the first legion rescued him. The avarice of the enemy, however, saved the Romans from destruction; for just as the legions were quite spent, and on the point of yielding, the Germans suddenly abandoned them to seize their baggage. During this respite, the Romans struggled out of the marsh, and, having gained the dry fields, formed a camp with all possible speed. The Germans having thus lost the opportunity of destroying the Romans, contrary to the advice of Arminius, attacked their camp next morning, but were repulsed with great slaughter; after which they gave Cæcina no more molestation till he reached the banks of the Rhine.

Germanicus, in the mean time, having conveyed the legions he had with him down the Ems to the ocean, to return by sea to the Rhine, and finding his vessels overloaded, delivered the second and fourteenth legions to P. Vitellius, desiring him to conduct them by land. But this march proved fatal to great numbers, who were either buried in the quicksands, or swallowed up by the returning tide, to which they were as yet utter strangers. Those who escaped lost their arms, utensils, and provisions; and passed a melancholy night upon an eminence, which they had gained by wading up to the chin. The next morning at ebb, Vitellius, by a hasty march, reached the Usingis, by some thought to be the Hoerenster, on which the city of Groningen stands. There Germanicus, who had reached that river with his fleet, took the legions again on board, and conveyed them to the mouth of the Rhine, whence they all returned to Cologne, where it had been reported they were totally lost.

This expedition cost the Romans very dear, and procured very few advantages. Great numbers of men had perished; and the greatest part of those who had escaped so many dangers, returned without arms, utensils, horses, &c., half naked, lamed, and unfit for service. The next year, however, Germanicus, bent on the entire reduction of Germany, made vast preparations for another expedition. Having found that the Germans were chiefly indebted for their safety to their woods and marshes, their short summers and long winters; and that his troops suffered more from their tedious marches than from the enemy, he resolved to enter the country by sea, hoping thus to begin the campaign earlier, and surprise the enemy. Having, therefore, built 1000 vessels, with great despatch, during winter, he ordered them early in the spring (A. D. 16), to fall down the Rhine; and appointed the island of the Batavians for the general rendezvous of his forces. When the fleet was sailing, he detached Silius, one of his lieutenants, with orders to make a sudden irruption into the country of the Catti; and in the mean time, he himself, hearing that a Roman fort on the Lupias was besieged, hastened with six legions to its relief. Silius was prevented, by sudden rains, from doing more than taking some booty, with the wife and daughter of Arpen, king of the Catti; neither did those who besieged the fort wait the arrival of Germanicus. In the mean time, the fleet arriving at the island of the Batavians, the provisions and warlike engines were put on board and sent forward; ships were assigned to the legions and allies; and, the whole army being embarked, the fleet entered the canal formerly cut by Drusus, and from his name called Fossa Drusiana. Hence he sailed prosperously to the mouth of the Ems; where, having landed his troops, he marched directly to the Weser, where he found Arminius encamped on the opposite bank, and determined to dispute his passage. The next day Arminius drew out his troops in order of battle; but Germanicus, not thinking it advisable to attack them, ordered the horse to ford over under the command of his lieutenants, Stertinius and Emilius; who, to divide the enemies' forces, crossed the river in two different places. At the same time Cariovalda, the leader of the Batavian auxiliaries, crossed the river where it was most rapid: but, being drawn into an ambuscade, he was killed, together with most of the Batavian nobility; and the rest would have been totally cut off, had not Stertinius and Emilius hastened to their assistance. Germanicus in the mean time passed the river without molestation. A battle soon after ensued; in which the Germans were defeated with so great a slaughter that the ground was covered with arms and dead bodies for more than ten miles round: and among the spoils taken on this occasion were found, as formerly, the chains with which the Germans had hoped to bind their captives.

In memory of this signal victory, Germanicus raised a mount, upon which he placed as trophies the arms of the enemy, and inscribed underneath the names of the conquered nations. This so provoked the Germans, though already vanquished and determined to abandon their country, that they attacked the Roman army unexpectedly on its march, and put them into some disorder. Being repulsed, they encamped between a river and a large forest surrounded by a marsh, except on one side, where it was enclosed by a broad rampart, formerly raised by the Angrivarii as a barrier between them and the Cherusci. Here another battle ensued; in which the Germans behaved with great bravery, but in the end were defeated with great slaughter. After this second defeat, the Angrivarii submitted, and were taken under the protection of the Romans, and Germanicus put an end to the campaign. Some of the legions he sent to their winter quarters by land, while he himself

embarked with the rest on the river Ems, in order to return by sea. The ocean proved at first very calm, and the wind favorable: but all of a sudden a storm arising, the fleet, consisting of 1000 vessels, was dispersed; some of them were swallowed up by the waves; others were dashed in pieces against the rocks, or driven upon remote and inhospitable islands, where the men either perished with famine, or lived upon the flesh of the dead horses with which the shores soon appeared strewed; for, in order to lighten their vessels, and disengage them from the shoals, they had been obliged to throw over-board their horses and beasts of burden, nay, even their arms and baggage. Most of the men, however, were saved, and even great part of the fleet recovered. Some of them were driven upon the coast of Britain; but the petty kings who reigned there generously sent them back. On the news of this misfortune, the Catti, taking new courage, ran to arms; but Caius Silius being detached against them with 30,000 foot, and 3000 horse, kept them in awe. Germanicus himself, at the head of a numerous body, made a sudden irruption into the territories of the Marsi, where he recovered one of Varus's eagles; and, having laid waste the country, he returned to the frontiers of Germany, and put his troops into winter quarters; whence he was soon recalled by Tiberius, and never suffered to return into Germany again. After the departure of Germanicus, the more northern nations of Germany were no more molested by the Romans. Arminius carried on a long and successful war with Maroboduus king of the Marcomanni, whom he at last expelled, and forced to apply to the Romans for assistance; but, excepting Germanicus, it seems they had at this time no other general capable of opposing Arminius, so that Maroboduus was never restored. After the final departure of the Romans, however, Arminius having attempted to enslave his country, fell by the treachery of his own kindred. The Germans held his memory in great veneration; and Tacitus informs us, that in his time they still celebrated him in their songs. Nothing remarkable occurs in the history of Germany from this time till the reign of Claudius I. A war indeed is said to have been carried on by Lucius Domitius the father of Nero. But of his exploits we know nothing more than that he penetrated beyond the river Elbe, and led his army farther into the country than any of the Romans had ever done. In the reign of Claudius, however, the German territories were invaded by Cn. Domitius Corbulo, one of the greatest generals of his age. But, when he was on the point of forcing them to submit to the Roman yoke, he was recalled by Claudius, who was jealous of the reputation he had required. In the reign of Vespasian, a terrible revolt happened among the Batavians and those German nations who had submitted to the Romans; an account of which will be found under the article Rome. The revolters were with difficulty subdued; but in the reign of Domitian the Dacians invaded the empire, and proved a more terrible enemy than any of the other German nations had been.

After repeated defeats, Domitian was at last obliged to consent to pay an annual tribute to Decebalus king of the Dacians; which continued to the time of Trajan. But this warlike prince refused to pay tribute; alleging, when it was demanded of him, that 'he had never been conquered by Decebalus.' Upon this the Dacians passed the Danube, and began to commit hostilities in the Roman territories. Trajan, glad of this opportunity to humble an enemy whom he began to fear, drew together a great army, and marched with the utmost expedition to the banks of the Danube. As Decebalus was not apprised of his arrival, the emperor passed the river without opposition, and entering Dacia laid waste the country. At last he was met by Decebalus with a numerous army. A bloody engagement ensued, in which the Dacians were defeated; though the victory cost the Romans dear: the wounded were so numerous, that they wanted linen to bind up their wounds; and to supply the defect, the emperor devoted his own wardrobe. After the victory, he pursued Decebalus from place to place, and at last obliged him to consent to a peace on the following terms: 1. That he should surrender the territories which he had unjustly taken from the neighbouring nations. 2. That he should deliver up his arms, his warlike engines, with the artificers who made them, and all the Roman deserters. 3. That for the future he should entertain no deserters, nor take into his service the natives of any country subject to Rome. 4. That he should dismantle all his fortresses, castles, and strong holds. And, lastly, that he should have the same friends and foes with the Romans. This peace was of short duration. Four years after (A. D. 105) Decebalus began to raise men, provide arms, entertain deserters, fortify his castles, and invite the neighbouring nations to join him against the Romans as a common enemy. The Scythians hearkened to his solicitations; but the Jazyges, a neighbouring nation, refusing to bear arms against Rome, Decebalus invaded their country. Hereupon Trajan marched against him; but the Dacian, finding himself unable to withstand him by open force, had recourse to treachery, and attempted to get the emperor murdered. His design, however, proved abortive, and Trajan pursued his march into Dacia. That his troops might the more readily pass and repass the Danube, he built his celebrated bridge over that river. To guard the bridge, he ordered two castles to be built; one on each side the Danube. Trajan, however, as the season was far advanced, did not enter Dacia this year, but contented himself with making the necessary preparations. Early in the next spring (A. D. 106) Trajan set out for Dacia; and, having passed the Danube by the new bridge, reduced the whole country, and would have taken Decebalus himself had he not put an end to his own life, to avoid falling into the hands of the Romans.

After the death of Decebalus, Dacia was reduced to a Roman province; and several castles were built in it, and garrisons placed in them to keep the country in awe. From the death of Trajan, the Roman empire began to decline, and the northern nations to be daily more and more formidable. Dacia indeed was held by the Romans till the reign of Galienus; but Adrian, who succeeded Trajan, caused the arches of the bridge over the Danube to be broken down, lest the

barbarians should make themselves masters of it, and invade the Roman territories. In the time of Marcus Aurelius, the Marcomanni and Quadi invaded the empire, and gave the emperor a terrible overthrow. He continued the war, however, with better success afterwards, and invaded their country in his turn. In the end, the Marcomanni and Quadi were, by repeated defeats, brought to the verge of destruction; insomuch that their country would probably have been reduced to a Roman province, had not Marcus Aurelius been diverted from pursuing his conquests by the revolt of one of his generals.

After the death of Marcus Aurelius, the Germanic nations became every day more and more formidable to the Romans. Far from being able to invade and attempt the conquest of these northern countries, the Romans had the greatest difficulty to repress the incursions of their inhabitants. But for a particular account of their various invasions of the Roman empire, and its total destruction by them at last, see ROME. The immediate destroyers of the Roman empire were the Heruli; who, under their leader Odoacer, dethroned Augustulus the last Roman emperor, and proclaimed Odoacer king of Italy (A. D. 478). The Heruli were soon expelled by the Ostrogoths; and these in their turn were subdued by Justinian I., who re-annexed Italy to the eastern empire. But the popes found means to obtain the temporal as well as spiritual jurisdiction over a considerable part of the country, while the Lombards subdued the rest. These last proved very troublesome to the popes, and at length besieged Adrian I. in his capital. In this distress he applied to Charles the Great king of France; who conquered both Italy and Germany, and was crowned emperor of the west (A. D. 800). See GERMANY.

We have now to notice the peculiar *manners* and *customs* of these nations. They are described by the Roman historians as resembling the Gauls; and differing from other nations by their tall stature, ruddy complexion, blue eyes, yellow bushy hair, haughty and threatening looks, strong constitutions, and being proof against hunger, cold, and all kinds of hardships. Their native disposition appeared chiefly in their martial genius, and in their singular fidelity. The former they indeed carried to such an excess as came little short of downright ferocity: and as to the latter, they were greatly esteemed by other nations for it: insomuch that Augustus, and several of his successors, committed the guard of their persons to them, and other nations either courted their alliance, or hired them as auxiliaries: though it must be owned that their extreme love of liberty, and their hatred of tyranny and oppression, often hurried them to treachery and murder, especially when they thought themselves ill used by those who hired them; for in such cases they were easily provoked, and extremely vindictive. In other cases, Tacitus tells us, they were noble, magnanimous, and beneficent, without ambition to aggrandise their dominions, or invade those from whom they had received no injury; rather choosing to employ their strength and valor defensively than offensively; to preserve their own than to ravage those of their neighbours. Their friendship and intercourse were rather a compound of honest bluntness and hospitality, than of wit, humor, or gallantry. All strangers were sure to meet with a kind reception from them to the utmost of their ability: even those who were not in a capacity to entertain them, reckoned it a duty to introduce them to those who could; and nothing was held more detestable than to refuse them either the one or the other. They do not seem, indeed, to have had a taste for elegant entertainments; they affected in every thing, in their houses, furniture, diet, &c., rather plainness and simplicity, than sumptuousness and luxury. If they learned of the Romans and Gauls the use of money, it was rather because they found it more convenient than their ancient way of bartering one commodity for another; and then they preferred those ancient coins which had been stamped during the times of the Roman liberty, especially such as were either milled or cut in the rims, because they could not be so easily cheated in them as in some others, which were frequently nothing but copper, or iron plated over with silver. This last metal they likewise preferred before gold, as more convenient for traffic; and, as they became more feared by the Romans, they learned how to draw enough of it from them to supply their whole country, besides what flowed from other nations. As to marriage, every man was contented with one wife, except some few of the nobles, who kept a plurality, more for show than pleasure; and both parties were so faithful to each other, and chaste, true, and disinterested, in their conjugal affection, that Tacitus prefers their manners in this respect to those of the Romans. The men sought not dowries from their wives, but bestowed them upon them. Their youth, in those cold climes, did not begin so soon to feel the warmth of love as those in hotter ones: it was common with them not to marry young; and those were most esteemed who continued longest in celibacy, because they reckoned it an effectual means to make them grow tall and strong. To marry, or be concerned with a woman, before they were full twenty years old, was accounted shameful wantonness. The women shared with their husbands not only the care of their families, and the education of their children, but even the hardships of war. They attended them in the field, cooked their victuals, dressed their wounds, excited their courage to fight against their enemies, and sometimes by their own bravery recovered a victory when it was upon the point of being lost. In a word, they looked upon such constant attendance on them, not as a servitude, like the Roman dames, but as a duty and an honor. Yet what appears to have been still a harder fate upon the ancient German ladies was, that their great Odin, or Woden, excluded all those from his valhalla, or paradise, who did not, by some violent death, follow their deceased husbands.

The authority of civil government was extremely limited among the Germans. In times of peace they had no common or fixed magistrate; but the chief men of every district dispensed justice and accommodated differences

In the far greater part of Germany, the form of government was a democracy, tempered indeed, and controlled, not so much by general and positive laws, as by the occasional ascendant of birth and valor, of eloquence and superstition. Some tribes, however, on the coast of the Baltic, acknowledged the right of kings; but their kings had not absolute or unbounded power; their authority consisted rather in the privilege of advising than in the power of commanding. Matters of small consequence were determined by the chief men; affairs of importance by the whole community.

On occasions of danger a general of the tribe was elected; and, in circumstances of pressing and extensive danger, several tribes concurred in the choice of the same general. The bravest warrior was named to lead his countrymen into the field, by his example rather than his commands. His power expired with the war, and in time of peace the German tribes acknowledged not any supreme chief. Princes were, however, appointed, in the general assembly, to administer justice, or rather to compose differences (minuunt controversias, Cæsar) in their respective districts. In the choice of these magistrates birth was regarded as much as merit. To each was assigned, by the public, a guard, and a council of 100 persons; and the first of the princes appears to have enjoyed a pre-eminence of rank and honor, which sometimes tempted the Romans to compliment him with the regal title.

They considered it as a badge of servitude to be obliged to dwell in a city surrounded with walls. Each barbarian fixed his independent dwelling on the spot to which a plain, a wood, or a stream of fresh water had induced him to give the preference. Neither stone, nor brick, nor tiles, were employed in these slight habitations. They were, indeed, no more than low huts of a circular figure, built of rough timber thatched with straw, and pierced at the top to leave a free passage for the smoke. That they considered cities as places of confinement, rather than of security, appears from the following circumstance: when one of their tribes had shaken off the Roman yoke, their countrymen required of them, as an evidence of their having recovered liberty, to demolish the walls of the towns which the Romans had built in their country.

The military weapons of the cavalry among the Germans were shields and spears, which they used in common with the foot, but the latter had, besides their darts, bows and slings, and seldom had recourse to their pikes and swords. Their arms were esteemed their favorite furniture and chief ornament; so that they never appeared in public without them. The sword was so sacred, that the most solemn and obligatory oaths were those which they took upon a naked blade. Nor did they assist in any solemn rite, without their sword, shield, or spear. They even wore them at their familiar visits, banquets, and religious dances; and they were frequently to be burnt or buried with them, when they died.

There is scarcely any thing in which the Germans, though nearly allied in most of their other customs to the Gauls, were more opposite to them than in their funerals. Those of the latter were performed with great pomp and profusion; those of the former with the same plainness and simplicity which they observed in all other things. The only grandeur they affected in them was, to burn the bodies of their great men with some peculiar kinds of wood; but the funeral pile was neither adorned with the clothes and other furniture of the deceased, nor perfumed with fragrant herbs and gums; each man's ar-nour, that is, his sword, shield, and spear, were flung into it, and sometimes his riding-horse. The Danes, indeed, flung into the funeral pile of a prince, gold, silver, and other precious things, which the chief mourners, who walked in a gloomy guise round the fire, exhorted the by-standers to fling liberally into it in honor of the deceased. They afterwards deposited their ashes in urns, like the Gauls, Romans, &c., as plainly appears from the vast numbers which have been dug up all over the country, and illustrated by dissertations written upon them, by several learned moderns of that nation. And the sacrifices they offered for their dead, the presents they made to them at their funerals, and all the other superstitious rites performed at them, were done in consequence of those notions, which their ancient religion had taught them, as to the immortality of the soul, and the bliss or misery of a future life. At these funerals, as well as in all their other feasts, they were famed for drinking to excess; and one may say of them, above all the other descendants of the ancient Celtes, that their hospitality, banquets, &c., consisted much more in the quantity of strong liquors, than in the elegance of eating Beer and strong mead, their natural drink, were reckoned the chief promoters of health, strength, fertility, and bravery; upon which account, they indulged themselves to the utmost in them, not only in their feasts, and before battle, but even in their common meals.

As the ancient Germans did not commit any thing to writing, and as none of the ancient writers have given us any account of it, it is impossible to guess how soon the belief of their great Woden, and his paradise, was received among them. It may have been much older than the times of Tacitus, and he have known nothing of it, from their care in concealing their religion from strangers; but as they conveyed their doctrines to posterity in songs and poems, and most of their northern poets tell us that they have drawn their intelligence from those very poems which were preserved amongst them, we may justly suppose that whatever doctrines are contained in them were formerly professed by the generality of the nation, especially as we find their ancient practice conformable to it. Thus, as the surest road to this paradise was to excel in martial deeds, and to die intrepidly in the field of battle; and as none were excluded from it but base cowards, and betrayers of their country, it is natural to think that the signal and excessive bravery of the Germans flowed from this ancient belief of theirs: and if their females were so brave and faithful as not only to share with their husbands all the dangers and fatigues of war, but at length to follow them by a voluntary death into the other world, it can hardly be

attributed to any thing else but a strong persuasion of their being admitted to live with them in that place of bliss. This belief therefore, whether received originally from the ancient Celtes, or afterwards taught them by the since deified Woden, seems, from their general practice, to have been universally received by all the Germans, though they might differ from one another in their notions of that future life. The notion of a future happiness obtained by martial exploits, especially by dying, sword in hand, made them bewail the fate of those who lived to old age, as dishonorable here and hopeless hereafter: upon which account they had a barbarous way of sending them into the other world, willing or not willing. And this custom is said to have lasted several ages even after their receiving Christianity, especially among the Prussians and Veneti. These murders were preceded by a fast and followed by a feast.

GERMAN'DER, *n. s.*, GERME, *n. s.*, GER'MIN, *n. s.*, GER'MINATE, *v. n.*, GERMINA'TION, *n. s.* } French *germandrée*; Lat. *germen*. A plant; sprout; shoot; a sprouting seed: to bud; increase; or grow: used in a literal and figurative sense.

Though palaces and pyramids do slope
Their heads to their foundations; though the treasure
Of nature's *germins* tumble all together,
Even 'till destruction sicken: answer me
To what I ask you. *Shakspeare. Macbeth.*

Thou all-shaking thunder,
Strike flat the thick rotundity of the world;
Crack nature's mould, all *germins* spill at once
That make ungrateful man. *Id. King Lear.*

For acceleration of *germination*, we shall handle the subject of plants generally. *Bacon.*

This action is furthered by the chalcites, which hath within a spirit that will put forth and *germinate*, as we see in chymical trials. *Bacon's Nat. History.*

Whether it be not made out of the *germe*, or treadle of the egg, doth seem of lesser doubt. *Browne.*

The seeds of all kinds of vegetables being planted near the surface of the earth, in a convenient soil, amongst matter proper for the formation of vegetables, would *germinate*, grow up, and replenish the face of the earth. *Woodward.*

Suppose the earth should be carried to the great distance of Saturn; there the whole globe would be one frigid zone; there would be no life, no *germination*. *Bentley's Sermons.*

GERMANDER, in botany. See TEUCRIUM.

GERMANDER, ROCK. See VERONICA.

GERMANICUS CÆSAR (Claudius), the son of Drusus, and nephew to the emperor Tiberius, who adopted him. He was much renowned as a general, and took the title of Germanicus from his conquests in Germany; but though he refused the empire, offered to him by his army, Tiberius, jealous of his success and popularity, caused him to be poisoned, A. D. 29, aged thirty-four. He was a protector of learning; and composed some Greek comedies and Latin poems, some of which are still extant. Many medals of this commander were struck by his son Caligula among which are figs. 1 and 2. In the first he is represented in his triumphal chariot, his right hand being elevated and bearing the eagle in his left which he had recovered in a battle with the Germans; inscription GERMANICUS CÆSAR. In the second the eagle also is preserved and the inscription bears reference to its capture.

Fig. 1.



Fig. 2.



GERMANO (St.) is a town of Naples, in the Terra di Lavoro, at the foot of the hill on which stands the Benedictine abbey of Monte Cassino. The passage of the mountain is hazardous, either on mules or on foot. In 1734 it was taken by the Spaniards; and on the 16th March, 1815, the Austrians defeated Murat here. Near this are the ruins of Cassinum, an ancient town destroyed by Theodoric, king of the Goths. Inhabitants 5000. Seventeen miles south-east of Sora, and forty-eight N. N. W. of Naples.

GERMANTOWN, a town of New York, in Columbia county, containing 516 citizens in 1796.

GERMANTOWN, the name of two towns in North Carolina: 1. in Hyde county, Newbern district; 2. the capital of Stokes county, on a branch of the Dan, 528 miles south-west by south of Philadelphia.

GERMANTOWN, a town of Pennsylvania, in Philadelphia county, chiefly inhabited by Germans. It has one principal street, mostly of stone buildings, two miles long, with Lutheran and Calvinist churches, Quaker meeting-house, &c. Stockings are manufactured to a great extent, and there are several tanneries. It is seven miles north of Philadelphia.

GERMANY, as a modern empire, is in strict propriety no longer existent; the repeated victories of the French in the late continental wars having, as we have shown in a preceding part of this work, induced the emperor of AUSTRIA (see that article) to relinquish his ancient title of emperor of Germany, and that prince having no other preponderance in the general Germanic confederation, settled by the congress of Vienna, than that which arises from the extent of his dominions. See DIET and ELECTOR.

Yet, as the new confederation maintains the old system so far as to combine the Germanic states in a diet, we may here notice some of the greater geographical and statistical features common to those states, referring to each of them as distinctly treated in their respective places of our alphabet for more minute particulars.

The following is a list of the states, with the number of votes, and the revenue and population of each, according to the official returns in 1818:—

Members of the Diet.	Number of Votes.	Population from the official return in 1818.	Revenue computed in Pounds sterling.	Members of the Diet.	Number of Votes.	Population from the official return in 1818.	Revenue computed in Pounds sterling.
			£				£
Austria (exclusive of Hungary, Galicia, and other states out of the empire) . .	4	9,482,227	6,370,000	Brought over . . .	50	29,019,205	17,756,000
Prussia (exclusive of her Polish territories) .	4	7,923,439	4,300,000	Mecklenburg-Strelitz, grand duchy . .	1	71,769	50,000
Saxony, kingdom . .	4	1,200,000	850,000	Oldenburg, gr. duchy	1	217,769	150,000
Bavaria	4	3,560,000	1,800,000	Anhault-Dessau, duchy	1	52,947	60,000
Hanover	4	1,305,351	900,000	Anhalt-Bernburg . .	1	37,046	30,000
Wirtemberg . . .	4	1,395,463	1,000,000	Anhalt-Kothen . .	1	32,454	23,000
Baden, grand duchy .	3	1,000,000	550,000	Schwartzburg-Sondershausen, principality	1	45,117	25,000
Hesse-Cassel, electorate	3	540,000	380,000	Schwartzburg - Rudolstadt	1	53,937	22,000
Hesse-Darmstadt, grand duchy	3	619,500	370,000	Hohenzollern - Hechingen	1	14,500	80,000
Holstein and Lauenburg, duchies . .	3	360,000	200,000	Lichtenstein . . .	1	5,546	3,000
Luxemburg, grand duchy	3	214,058	120,000	Hohenzollern - Sigmaringen	1	35,360	30,000
Brunswick, duchy .	2	209,600	130,000	Waldeck, county . .	1	51,877	40,000
Mecklenburg-Schwerin grand duchy . . .	2	358,000	150,000	Reuss (Elder Branch) principality . . .	1	22,255	13,000
Nassau, duchy . . .	2	302,767	176,000	Reuss (Younger Br.)	1	52,205	29,000
Saxe-Weimar, grand duchy	1	201,000	150,000	Hesse-Homburg . .		20,000	17,000
Saxe-Gotha, duchy .	1	185,682	150,000	Schaumburg-Lippe .	1	24,000	18,000
Saxe-Cobourg . . .	1	80,012	55,000	Lippe-Detmold . .	1	69,062	50,000
Saxe-Meinungen . .	1	54,400	35,000	The free town of Lubeck	1	40,650	30,000
Saxe-Hildburghausen	1	27,706	20,000	Do. of Frankfort . .	1	47,850	60,000
				Do. of Bremen . .	1	48,500	40,000
				Do. of Hamburgh .	1	129,800	120,000
Carry over . .	50	29,019,205	17,756,000		69	30,091,849	18,646,000

The entire number of votes therefore in the Germanic diet is, according to this table, sixty-nine; but, as it would be evidently improper to give the smaller states an equal voice with the larger, a repartition of votes has been agreed on, in the manner we have more particularly stated in the article DIET.

Germany, thus defined, is bounded on the north by Denmark and the Baltic; on the east by Poland; on the south by Hungary, Italy, and Switzerland; and on the west by France and the Netherlands. It is more extensive than either France or Spain, being about 650 miles from north to south, and 600 from east to west; and embraces a surface of 220,000 square miles, with a population of more than 30,000,000 of inhabitants, or about 136 individuals to each square mile.

It is physically divided into two principal portions by the Sudetic chain of mountains, which beginning with the Westerwald in Westphalia, and traversing Hesse-Cassel, the south of Saxony, and Silesia, end in the Carpathians, on the frontier of Poland and Hungary. Almost all the country to the north of this range is flat, and the rivers hold a northerly course, without meeting any formidable impediment, until they reach the level of the German Ocean or the Baltic. Southward of this chain Germany is much more diversified, consisting in part of extensive plains, but traversed also by vast ranges of mountains, as the Alps, extending from Switzerland on the west to Hungary on the east. In its central part is a great ridge running north-west from the Brisgau to Egra, and forming afterwards, by a semicircular curve, the southern half of the barrier that separates Bohemia from the adjacent countries. The course of the rivers also in southern Germany is less uniform than in the north: the Inn and the other great streams proceeding from the Alps run northward, and are absorbed in the Danube; while other rivers, less both in number and magnitude, flow into the Danube by a southerly course, from Franconia and Moravia; and the Neckar and the Maine convey their waters westward to the Rhine. The inhabitants therefore with great propriety call the southern half Upper, the northern Lower Germany; and for the same reason apply the terms Upper and Lower Saxony, and Upper and Lower Rhine.

Sixty navigable *rivers* are said to penetrate this part of Europe, among which are the DANUBE, the RHINE, the MAINE, the WESER, the ELBE, and the ODER. See those articles.

The oldest canal is said to have been begun by Charlemagne in 793, to join the Rednitz and Altmuhl: it is not yet complete. The principal

are, the canal of Kiel, which joins the Baltic to the North Sea. That of Traremunde, which goes from Lubeck to Hamburgh; and a few of considerable importance, but not of great length, in the Prussian states. Inland navigation is particularly wanted in Southern Germany. The congress of Vienna enacted that, in the case of navigable rivers running through the states of different powers, commissioners should be named by these powers to regulate all that regarded the navigation, on the principle that such rivers ought to be open to all the nations interested, and that every thing should be done to diminish the obstacles to free intercourse. Other waters are not numerous in Germany; there are a few small lakes in Bavaria, Austria, Pomerania, and Brandenburg; but the principal are in the duchy of Mecklenburg. The lake of Constance belongs partly to Germany and partly to Switzerland. Germany on the other hand contains upwards of 1000 mineral springs and baths, of which the most celebrated are at Carlsbad in Bohemia, at Toplitz in Austria, at Seltzer on the Upper Rhine, at Pyrmont in Westphalia, and at Aix-la-Chapelle.

Germany, in point of *climate*, is as various as in her other great geographical features. It is colder in the north, than in Britain; but the summer, even there, is on the whole warmer than ours. The range of latitude is from 46° to 54° N., and the air is almost every where salubrious. But Vienna and some other northern districts are considered unhealthy, from their marshy position. Sandy plains and barren heaths abound in the north-east, swamps and marshes in the north-west; but many of the interior and south-west parts are very fertile. A large proportion of the Prussian states is of a sandy and unproductive character: Bavaria, Wirtemberg, and the hereditary states of Austria, much diversified; while Saxony is in general fertile.

Germany grows wheat, barley, oats, and all our kinds of corn: flax, rapeseed, madder, and hops: but agriculture as a science, particularly in the south, is in a backward state. Valuable tracts lie uncultivated and there are throughout a number of extensive forests, in which wolves, wild boars, lynxes, &c., still hold dominion. The finest pastures are in the north-west, particularly in East Friesland, Oldenburg, Mecklenburg, and some parts of Hanover and Holstein. Here also are found excellent cattle and some good breeds of horses. Sheep are general throughout Germany, and the Merino breed, introduced a century ago into Saxony, is said to be equal to the finest of Spain. Our corn laws prohibiting, in fact, the German farmers to export that commodity to Great Britain, have been the means even in the last year (1826) of turning a more decided attention to the improvement of the German wools.

The *wines* made along the banks of the Rhine have long been celebrated. Next to these are the wines of the Moselle, and of particular districts in the Austrian provinces. In the latter only, and in a few other parts of the south of Germany, silk is cultivated; and while some of the rivers, particularly the Danube and the Elbe, afford small particles of gold, they hardly repay the expense of washing. The mountains are rich in iron, copper, lead, tin, silver, cobalt, and bismuth, particularly the Erzgebirge chain in Saxony, and the Hartz Mountains, and those of Carinthia and Styria. Bavaria, as well as the duchy of Saltzburg, is also rich in salt mines. The mines of Idria, in Carniola, yield annually 5000 cwt. of quicksilver. Fullers' earth and porcelain clay are found near Dresden, and form the basis of extensive manufactures. Marble is found in various parts; and coal is wrought in Westphalia, Saxony, and other provinces. In the south the great majority of the coal mines is said to be unwrought. The manufactures of Germany are not confined to any particular districts, as in England. The stock of wool being equal only to the home consumption, and the sheep of Germany which hardly exceed in number those of England (a country of not one-third the extent), being scattered over the country, the woollen manufactures are in like manner diffused on a small scale throughout various towns. But flax being produced in great abundance, and of the best quality, in Northern Germany; the linen made there has been famous for several centuries. It is manufactured in Silesia, Saxony, and Westphalia, not only for home consumption, but also for export. Cotton manufactures are of recent origin here; and a great competition has been introduced between their manufactures and ours. Cheapness of labor is a decided advantage possessed here, but the machinery is inferior and their fuel dearer than ours.

In the important branch of hardware the Germans are also inferior to our manufactures, but they excel us perhaps in articles of wood, ivory, toys, &c.

The imports of Germany are colonial produce from the East Indies, and America; wine from France and Spain; cottons and hardware from England. The chief commercial cities are Vienna, Hamburgh, Lubeck, Bremen, Frankfort on the Maine, Breslau, Leipsic, Augsburg, Nuremberg; to these are to be added in the second class Stralsund and Stettin on the Baltic, and in the interior Magdeburg, Ulm, and Naumburg. The pride of the educated ranks has proved a great impediment to the extension of commercial undertakings in Germany, the gentry preferring to educate their sons for the army, and allowing commerce to be confined to the inhabitants of the free towns. Navigation and the fisheries are both very limited pursuits, being confined to the shores of the Baltic and North Seas.

Several of the southern German states are still Catholic, but toleration prevails in most of them. The Lutheran and Calvinistic *churches* are chiefly in the north. Under the former constitution, several of the Catholic dignitaries were princes of the empire; but they have happily lost their temporal power, and most of the Catholic bishops receive salaries from the state. Many of the abbeys and monasteries were secularised by the treaty of Luneville, and the chief of those remaining are in Austria. In some of the northern parts of Germany, the Lutherans and Calvinists have agreed to relinquish their distinguishing appellations, and unite in one body,

as the professors of the Evangelical Faith. Jews are numerous in most parts of Germany; their political condition varying in different states. A few Greek Christians are likewise found in some of the south-eastern provinces.

Germany, in its language and literature, presents wide fields of interesting research and attainment. The former embraces a vast number of dialects, and is altogether a barbarous mixture of the Northern and Latin tongues of all ages: the Latin has been very successfully cultivated of late by the learned, and what is called High German, spoken by the superior and educated classes, is a copious and tolerably harmonious language. But the Low German of the North is dreadfully harsh to a foreign ear. German literature presents a large and useful mass of *materials;* and in the history of literature her writers excel; as indeed in every kind of historical research. But they are abstract in metaphysics; young in politics, and the true doctrine of political liberty; verbal as critics; and sceptical in theology, particularly her modern Protestant divines. Poetry has been said to date in Germany no further back than the middle of the eighteenth century; of course it is undisciplined by taste, and chiefly lyrical. Studying with a view to publish is often the settled object of life here: copyright being unlimited in duration; and authorship considered a source of regular income. The libraries at the chief universities are on a very useful plan, containing an ample supply of recent publications; and booksellers have long acted on a plan of exchanging all new publications among each other. All this, however, leads in Germany to the publication of much of that knowledge which in other countries is not consigned to the press; and often not to paper. In the fine arts the Germans are not backward: engraving is carried in some cities to a pitch of considerable excellence; and painting, particularly of late, has been successfully cultivated; perhaps, however, their greatest progress is in music. In medicine, particularly in surgery, they are deficient, wanting almost every where hospital practice.

We must add, however, that in the mathematics and mechanics, in astronomy, geography, and chemistry, few countries can boast so long a list of able writers.

There are twenty-one universities in Germany (formerly thirty in number), of which thirteen are Protestant, viz.

Berlin.	
Gottingen . . .	in Hanover.
Leipsic, Jena, Halle . . .	in Saxony.
Heidelberg . . .	in Baden.
Tubingen	in Wirtemberg.
Erlangen	in Franconia.
Marburg	in Hesse-Cassel.
Giessen	in Hesse-Darmstadt.
Kiel	in Holstein.
Rostock	in Mecklenburg Schwerin.
Greifswalde . . .	in Pomerania.

Six Catholic, viz.

Vienna	
Prague	
Paderborn . . .	in Prussian Westphalia.
Landshut . . .	in Bavaria.
Wurtzburg . . .	in Franconia.
Freyburg . . .	in Baden,

and two partly Catholic and partly Protestant, viz. Breslau in Silesia, and Bonn on the Rhine; the latter was created in 1818. Wittenberg, Erfurt, Olmutz, and several others, have ceased to be universities. The total number of students at these seminaries is between 8000 and 9000; Gottingen is the most numerously attended, having above a tenth of the whole. Schools, literary societies, and museums, are every where increasing.

We now advert to the *history* of this mighty aggregate of nations in modern times. The extensive empire erected by Charles the Great, which he himself imprudently began to divide among his sons during his own lifetime, was not long enjoyed by his posterity. In France the Carlovingian race continued to reign for 183 years after his death; but in Germany it continued only seventy-four years; producing, within that period, six emperors, viz. Louis I. his son, Lothair I. and Louis II. his grandsons; Charles II., his great grandson; Louis III., son of Charles II., and Charles III., who was deposed in 888. On the deposition of Charles III. the German princes resumed their ancient independence; and, rejecting the Carlovingian race (according to some), elected Arnulph, king of Bohemia. Others, however, say, this Arnulph was the son of Carloman, a descendant of Charlemagne. Be that as it may, he reigned twelve years, and conquered his rival Guido, or Guy, who had been set up in opposition to him, and crowned king of Germany, by pope Formosus in 892; who also, upon the death of Guy, next year, crowned his son Lambert. Arnulph, however, reigned till 899, when he died, and was succeeded by his son Louis IV., whom some style the last of the male line of Charlemagne. Upon his death, in 911, the nobles elected Otho, duke of Saxony, but he, being old, recommended Conrad, duke of Franconia, whom they elected accordingly in 912. Conrad, dying in 920, recommended to their election Henry I., surnamed the Fowler, the son of Otho. Henry conquered the Danes, Hunns, Vandals, and Bohemians; and was succeeded, in 937, by his son Otho I., surnamed the Great; who, after reigning twenty-six years as king of Germany, was crowned emperor in 962. After this he reigned other ten years; and, in 973, was succeeded by his son Otho II., who, dying in 983, was succeeded by his son Otho III., a boy of ten years of age. The reigns of most of these monarchs contain little remarkable, except their contests with the popes. What more immediately merits attention is the progress of government in Germany, which was in a great measure opposite to that of the other kingdoms of Europe. When the empire, erected by Charlemagne, fell asunder, all the independent princes assumed the right of election; and those now distinguished by the name of electors had no legal or peculiar right to appoint a successor to the imperial throne. They were only the officers of the emperor's or king's household, his secretary, steward, chaplain, marshal, or

master of horse, &c. By degrees, however, as they lived near his person, and had independent territories of their own, they increased their influence and authority; and in the election of Otho III., A. D. 984, acquired the sole right of electing the emperor. Thus, while in the other kingdoms of Europe the dignity of the great lords, who were all originally allodial or independent barons, was diminished by the power of the king, as in France, and by the influence of the people, as in Great Britain; in Germany, on the other hand, the power of the electors was raised upon the ruins of the emperor's supremacy, and of the people's jurisdiction.

Upon the death of Otho III., in 1001, an interregnum of four months ensued; after which the princes elected Henry II., surnamed the Lame, the grandson of Henry I., who reigned twenty-three years. Of this emperor's successors, till the accession of the house of Austria, it is only necessary here to give a brief chronological list. Conrad II., surnamed Salicus, the son of Herman, duke of Franconia, was elected in 1024; and after reigning nearly fifteen years, was succeeded, in 1039, by his son Henry III.; who, in 1056, was succeeded by his son Henry IV., though not without opposition from Rodolph of Suabia, and Herman of Luxemburg. Henry IV., after having reigned no less than fifty years, was deposed, in 1106, by his unnatural son Henry V.; on whose death, in 1125, Lothaire II., duke of Saxony, was elected. He died in 1137, and next year the diet chose Conrad III., duke of Franconia, the son of Frederick, duke of Suabia. He was succeeded, in 1152, by his brother, Frederick I., surnamed Barbarossa, who having embarked against the infidels, and taken Iconium, was drowned in Syria, in 1190. He was succeeded by his son Henry VI., who behaved so villanously to Richard I. of England, and who was at last poisoned by his wife Constance, and succeeded by his son Otho IV., in 1197. But a party of the princes having chosen Philip, duke of Suabia, Henry's brother, a civil war ensued, which ended in favor of Otho, Philip being assassinated in 1208. But four years after Otho was deposed, and Frederick II., his younger brother, then king of Sicily, was elected emperor, and crowned by pope Honorius III. in 1220. Having afterwards offended pope Gregory IX., by making peace with the sultan of Babylon, Frederick was excommunicated, which gave rise to the factions of the Guelphs and Gibelines, who, by their inveterate virulence against each other, disturbed the empire for several ages. Conrad IV. was elected emperor on the death of his father Frederick II., in 1250. See Conrad IV. He died four years after, and was supposed to have been poisoned. His son was still more unfortunate. After an interregnum of two years, Richard, duke of Cornwall, brother to Henry III. king of England, was elected emperor in 1257; but, that prince residing mostly in England, Alphonso X., king of Castile, was elected in opposition to him. At last Rodolph I., count Hapsburg, was elected emperor in 1273. He conquered and killed Ottocar, king of Bohemia, and laid the foundation of the future grandeur of the house of Austria, though upon his death, in 1291, Adolphus of Nassau was chosen emperor; but had not reigned seven years, when he was defeated and slain by Albert of Austria, the son of Rodolph, who was crowned emperor in 1298.

Albert I. was equally ambitious and rapacious, but having seized upon the paternal estates of his nephew, John of Suabia, he was assassinated by that prince in 1308. Henry VII. of Luxemburg was then elected, upon whose death, in 1313, an interregnum of a year took place, when Louis V. the son of Louis duke of Bavaria, by Matilda, daughter of Rodolph I., was chosen by one party of the electors, and Frederick, the son of Albert I., by another. But Frederick, being taken prisoner, was obliged to renounce his dignity; and Louis, being killed by a fall from his horse in 1347, was succeeded by his other competitor, Charles IV., the son of John king of Bohemia, and grandson of Henry VII. This prince was a great encourager of learning, and in his reign the golden bull, establishing the Germanic constitution, was given by pope Innocent VI. in 1356. Charles, dying in 1378, was succeeded by his son Wenceslaus, who was twice imprisoned by the Bohemians, and at last deposed in 1400, when Rupert, Prince Palatine, was elected. Rupert was succeeded, in 1410, by Jodocus Margrave of Moravia, who, in 1411, was displaced by Sigismund, king of Hungary and Bohemia, the son of Charles IV. Albert II., duke of Austria, having married this monarch's daughter, succeeded him in all his dominions in 1437, but reigned only two years. His son Frederick III., archduke of Austria, &c. was elected emperor in 1440; and, from this period, the imperial dignity continued in the male line of that family for 300 years. His successor Maximilian I. married the heiress of Charles, duke of Burgundy; whereby Burgundy and the seventeen provinces of the Netherlands were annexed to the house of Austria. Charles V., grandson of Maximilian, and heir to the kingdom of Spain, was elected emperor, A. D. 1519. Under him Mexico and Peru were conquered by the Spaniards; and in his reign happened the reformation in several parts of Germany; which, however, was not confirmed by authority till 1648, by the treaty of Westphalia.

The reign of Charles V. was continually disturbed by his wars with the German princes and the French king, Francis I. Though successful in the beginning of his reign, his good fortune, towards the conclusion of it, forsook him; which, with other causes, occasioned his abdication of the crown. His brother Ferdinand I., who succeeded him in 1558, proved a moderate prince with regard to religion. He caused his son, Maximilian, to be elected king of the Romans in his own lifetime, and died in 1564, having ordered, by his last will, that if either his own male issue, or that of his brother Charles, should fail, his Austrian estates should revert to his second daughter Anne, wife to the elector of Bavaria, and her issue. This gave rise to the opposition afterwards made by the house of Bavaria to the Pragmatic sanction, in favor of the empress queen of Hungary on the death of her father. The

reign of Maximilian II. was disturbed with internal commotions, and an invasion from the Turks; but he died in peace in 1576. He was succeeded by his son Rodolph II., who was involved in wars with the Hungarians, and in differences with his brother Matthias, to whom he ceded Hungary and Austria in his lifetime, and by whom he was succeeded in the empire. Under Matthias the Lutherans and Calvinists were so much divided, as to threaten the empire with a civil war. His ambition, however, at last tended to reconcile them; but the Bohemians revolted, and threw the imperial commissaries out of a window at Prague. This gave rise to a ruinous war, which lasted thirty years. Matthias expected to have exterminated both parties; but they formed a confederacy, called the Evangelic League, which was counterbalanced by a Catholic League. Matthias, dying in 1618, was succeeded by his cousin Ferdinand II.; but the Bohemians offered their crown to Frederick, the elector Palatine, the most powerful Protestant prince in Germany, and son-in-law to king James I. That prince was so imprudent as to accept of the crown; but he lost it, being entirely defeated by the duke of Bavaria and the imperial generals at the battle of Prague; and he was even deprived of his electorate, the best part of which was given to the duke of Bavaria. The Protestant princes in Germany, however, had among them, at this time, many able commanders, who were at the head of armies, and continued the war with wonderful obstinacy. Among these were the margrave of Baden Durlach, Christian duke of Brunswick, and count Mansfield. Christian IV., king of Denmark, declared for them; and Richelieu, the French minister, was not fond of seeing the house of Austria aggrandised. The emperor, on the other hand, had excellent generals; and Christian, having put himself at the head of the Evangelic League, was defeated by Tilly, an Imperialist of great military reputation. The Protestants formed a fresh confederacy at Leipsic, of which the celebrated Gustavus Adolphus, king of Sweden, was the head. An account of his victories will be found under the article SWEDEN. At last he was killed at the battle of Lutzen in 1632. But the Protestant cause did not die with him. He had brought up a set of heroes, such as the duke of Saxe-Weimar, Torstenson, Banier, and others, who shook the Austrian power; till, under the mediation of Sweden, a general peace was concluded among all the belligerent powers, at Munster, in 1648: which formed the basis of the subsequent political system of Europe.

Ferdinand III. succeeded his father; but died in 1657, and was succeeded by his son Leopold I., a severe, unamiable, and not very fortunate prince. He had two great powers to contend with, France and the Turks, and was a loser in his wars with both. Louis XIV. had the two celebrated generals, Condé and Turenne, in his service. The latter had already distinguished himself by great exploits against the Spaniards; and, on the accession of Leopold, the court of France had taken the opportunity of confirming the treaty of Munster, and attaching to her interest several independent princes of Germany. The tranquillity which now too place, however, was not established upon any permanent basis. War with Spain was resumed in 1668; and the great successes of Turenne in the Netherlands excited the ambition of the prince of Condé to attempt the conquest of Franche Compté, then under the protection of the house of Austria. This was accomplished in three weeks: but the rapid success of Louis had awakened he jealousy of his neighbours to such a degree, that a league was formed against him by England, Holland, and Sweden; and the French monarch, dreading to enter the lists with such formidable enemies, consented to the treaty of Aix-la-Chapelle; by which, among other articles, Franche Compté was restored.

The flames of war were soon renewed by the insatiable ambition of Louis XIV., who, having entered into an alliance with Charles II. of England, aimed at the total overthrow of the Dutch republic. The events of that war will be found related under the article UNITED PROVINCES. The misfortunes of the Dutch excited the compassion of the emperor and king of Spain, who openly declared themselves their allies. Turenne was opposed by the prince of Orange and the celebrated general Montecuculi, whose artful conduct eluded even the penetrating eye of Turenne, and he sat down suddenly before Bonne. Here he was joined by the prince of Orange, who had likewise eluded the vigilance of the French generals. Bonne soon surrendered, and several other places in Cologne fell into the hands of the allies; who likewise cut off the communication between France and the United Provinces; so that Louis was soon obliged to recal his armies, and abandon all his conquests with greater rapidity than they had been made. In 1674 he was deserted by his ally Charles II. of England, and the bishop of Munster and elector of Cologne were compelled to renounce their allegiance to him; but, notwithstanding these misfortunes, he continued every where to make head against his enemies, and even meditated new conquests. With a powerful army he again invaded Franche Compté in person, and, in six weeks, reduced the whole province. In Alsace, Turenne defeated the imperial general at Sintzheim, and ravaged the palatinate, surprised 70,000 Germans, cut in pieces a considerable detachment at Mulhausen, routed the elector of Brandenburg, who had been entrusted with the chief command, near Colmar; gave a third body a similar fate at Turkheim; and obliged the whole German forces at last to evacuate the province, and repass the Rhine. In consequence of these disasters, Montecuculi was recalled to act against Turenne. The military skill of the two commanders seemed to be nearly equal; but, before the superiority could be adjudged to either, Turenne was killed by a cannon ball, in reconnoitreing a situation for erecting a battery. By his death the Imperialists obtained a decided superiority. Montecuculi penetrated into Alsace; and the French, under de Lorges, nephew to the deceased general, were happy in being able to avoid a defeat. Part of the German army now sat down before Treves, where they were opposed by Mareschal Crequi; but his negligence exposed

him to such a dreadful defeat, that he was obliged to fly into the city with only four attendants. Here he endeavoured in vain to animate the people to a vigorous defence. The garrison mutinied; and, when he refused to sign the capitulation they made, delivered him up prisoner to the enemy. Louis, in the mean time, had taken the field in person against the prince of Orange; but the disastrous state of affairs in Germany induced him to recal the prince of Condé to make head against Montecuculi. In this campaign the prince seemed to have the advantage. He compelled the Germans to raise the sieges of Hagenau and Saverne; and at last to repass the Rhine, without having been able to force him to a battle. This was the last campaign made by these celebrated commanders; both of whom now retired from the field to spend the remainder of their days in peace. The excellent discipline, however, which the two great French generals had introduced into their armies, still continued to make them very formidable. In Germany the duke of Lorrain, who had recovered Philipsburg, was repeatedly defeated by Mareschal Crequi, who had been ransomed. In Flanders the prince of Orange was overmatched by the duke of Orleans and Marshal Luxemburg. A peace was at length concluded at Nimeguen in 1679, by which Louis secured Franche Compté, with many cities in the Netherlands; while the king of Sweden was reinstated in those places of which he had been stripped by the Danes and Germans. This tranquillity, however, was of short duration. Louis prepared for new contests: possessed himself of Strasburg by treachery; and dispossessed the elector palatine and the elector of Treves of the lordships of Falkenburg, Germansheim, and Valdentz. On the most frivolous pretences he had demanded Alost from the Spaniards; and, on their refusal, seized upon Luxemburg. His conduct, in short, was so intolerable, that the prince of Orange, his inveterate enemy, found means to unite the whole empire in a league against him. Spain and Holland became parties in the same cause; and Sweden and Denmark seemed also inclined to accede to the general confederacy. Notwithstanding this formidable combination, Louis seemed still to have the advantage. He made himself master of Philipsburg, Manheim, Frankendal, Spire, Worms, and Oppenheim; the palatinate was ravaged dreadfully; the towns were reduced to ashes; and the people, driven from their habitations, were left to perish through the inclemency of the weather and the want of provisions. By this cruelty his enemies were rather exasperated than vanquished: the Imperialists, under the duke of Lorrain, resumed their courage, and put a stop to the French conquests. At length all parties, weary of a destructive war, consented to the treaty of Ryswick in 1697.

By the treaty of Ryswick, Louis XIV. gave up to the empire Fribourg, Brisac, Kehl, and Philipsburg; and consented to destroy the fortifications of Strasburg. Fort Louis and Traerbach, the works of which had exhausted the skill of the great Vauban, with Lorrain, Treves, and the palatinate, were resigned to their respective princes; insomuch that the terms to which he now consented, after so many victories, were such as could scarcely have been expected under the pressure of the greatest misfortunes. The views of Louis, however, in consenting to this apparently humiliating treaty, were beyond the views of ordinary politicians. The health of the king of Spain was in such a declining way, that his death appeared to be at hand; and Louis now resolved to renew his pretensions to that kingdom, which he had formerly, by a treaty, solemnly renounced. But his designs, in this respect, could not be concealed from the vigilance of William III. of England; of which Louis being sensible, and knowing that the emperor had claims of the same nature on Spain, he entered into a very extraordinary treaty with William. This was no less than the partition of the whole Spanish dominions in the following manner:—To the young prince of Bavaria were to be assigned Spain and the East Indies; the dauphin, son to Louis, was to have Naples, Sicily, and the province of Guipuscoa; while the archduke Charles, son to Leopold, was to have only the duchy of Milan. By this scandalous treaty, the indignation of Charles was roused, so that he bequeathed the whole of his dominions to the prince of Bavaria. This scheme, however, was disconcerted by the sudden death of the prince; upon which a new treaty of partition was concluded between Louis and William. By this the kingdom of Spain, with the East India territories, were to be bestowed on the archduke Charles, and the Duchy of Milan upon the duke of Lorrain. The last moments of the Spanish monarch were disturbed by the intrigues of the rival houses of Austria and Bourbon; but the haughtiness of the Austrian ministers so disgusted those of Spain, that they prevailed upon their dying monarch to make a new will. By this the whole of his dominions were bequeathed to Philip, duke of Anjou, grandson to Louis, who, prompted by his ambition, accepted the kingdom bequeathed to his grandson, excusing himself to his allies in the best manner he could for departing from his engagements. For this, however, he was made to pay dear. His insatiable ambition and his former successes had alarmed all Europe. The emperor, the Dutch, and the king of England, entered into a new confederacy against him; and a bloody war ensued, which threatened to overthrow the French monarchy entirely. While this war was carried on with such success, the emperor Leopold died in 1705. He was succeeded by his son, Joseph I., who put the electors of Cologne and Bavaria to the ban of the empire; but being ill served by Prince Louis of Baden, general of the empire, the French partly recovered their affairs, notwithstanding their repeated defeats. The duke of Marlborough had not all the success he expected or deserved. Joseph himself was suspected of a design to subvert the Germanic liberties; and it was plain, by his conduct, that he expected England should take the laboring oar in the war, which was to be entirely carried on for his benefit. The English were disgusted at his slowness and selfishness: but he died, in 1711, before he had reduced the Hungarians; and, leaving no

male issue, was succeeded by his brother Charles VI., whom the allies were endeavouring to place on the throne of Spain, in opposition to Philip, duke of Anjou, grandson to Louis XIV.

When the peace of Utrecht took place, in 1713, Charles at first conducted himself as if he would continue the war, but found himself unable, being forsaken by the British. He therefore was obliged to conclude a peace with France at Baden in 1714, that he might attend the progress of the Turks in Hungary; where they received a total defeat from prince Eugene at the battle of Peterwaradin. They received another of equal importance from the same general in 1717, before Belgrade, which fell into the hands of the Imperialists; and, next year, the peace of Passarowitz, between them and the Turks, was concluded. Charles employed his leisure in making arrangements for increasing and preserving his hereditary dominions in Italy and the Mediterranean. Happily for him, the crown of Britain devolved to the house of Hanover; an event which gave him a very decisive weight in Europe, by the connexions between George I. and II. and the empire. Charles was sensible of this, and became, in consequence, so haughty, that, about A. D. 1724 and 1725, a breach ensued between him and George I., and so unsteady was the system of affairs all over Europe at that time, that the capital powers often changed their old alliances, and concluded new ones contradictory to their interest. It is sufficient to observe here that the safety of Hanover, and its aggrandisement, was the main object of the British court; as that of the emperor was the establishment of the Pragmatic sanction in favor of his daughter the late empress queen, he having no male issue. Mutual concessions upon these great points restored a good understanding between George II. and Charles VI.; and the elector of Saxony, flattered with the view of gaining the throne of Poland, relinquished his claims upon the Austrian succession. The emperor, after this, had very bad success in a war with the Turks, which he had undertaken chiefly to indemnify himself for the great sacrifices he had made in Italy to the house of Bourbon. Prince Eugene was then dead, and he had no general to supply his place. The system of France, however, under cardinal Fleury, happened to be pacific; and she obtained for him, from the Turks, a better peace than he had reason to expect. Charles, to keep the German and other powers contented, had, before his death, given his eldest daughter, Maria Theresa, afterwards empress-queen, in marriage to the duke of Lorrain, a prince who could bring no accession of power to the Austrian family. He died in 1740.

Charles VI. was no sooner in the grave than all he had so long labored for must have been overthrown, had it not been for the firmness of George II. The young king of Prussia entered and conquered Silesia, which he said had been wrongfully dismembered from his family. The king of Spain and elector of Bavaria set up claims directly incompatible with the Pragmatic sanction, and in this they were joined by France; though all these powers had solemnly guaranteed it. The imperial throne, after a considerable vacancy, was filled up by the elector of Bavaria, who took the title of Charles VII. in January 1742. The French at this time poured their armies into Bohemia, where they took Prague; and the queen of Hungary, to divert the king of Prussia, ceded to that prince the most valuable part of the duchy of Silesia by a formal treaty. Her youth, her beauty, and her sufferings, together with the fortitude with which she bore them, touched the hearts of the Hungarians, into whose arms she threw herself and her young son; and, though they had been long remarkable for their disaffection to the house of Austria, they declared unanimously in her favor. Her generals drove the French out of Bohemia; and George II., at the head of an English and Hanoverian army, gained the battle of Dettingen, in 1743. Charles VII. was at this time miserable on the imperial throne, and would have given the queen of Hungary almost her own terms; but she haughtily and impolitically rejected all accommodation, though advised to it by his Britannic majesty, her best and indeed only friend. This obstinacy gave a color to the king of Prussia to invade Bohemia, under pretence of supporting the imperial dignity; but though he took Prague, and subdued the greatest part of the kingdom, he was not supported by the French; upon which he abandoned all his conquests and retired into Silesia. This event confirmed the obstinacy of the queen of Hungary; who came to an accommodation with the emperor that she might recover Silesia. He died soon after in 1745, and Francis I., duke of Lorrain, then grand duke of Tuscany, consort to the queen of Hungary, after surmounting some difficulties, was chosen emperor.

The bad success of the allies against the French and Bavarians in the Low Countries, and the loss of the battle of Fontenoy, retarded the operations of the empress-queen against the king of Prussia. The latter beat the emperor's brother, prince Charles of Lorrain, who had before driven the Prussians out of Bohemia; and the conduct of the empress-queen was such, that his Britannic majesty thought proper to guarantee to him the possession of Silesia, as ceded by treaty. Soon after, the king of Prussia, alleging that he had discovered a secret convention between the empress-queen, the empress of Russia, and the king of Poland, to strip him of his dominions and to divide them among themselves, suddenly drove the king of Poland out of Saxony, defeated his troops, and took possession of Dresden; which he held till a treaty was made under the mediation of king George II., by which the king of Prussia acknowledged Francis I. for emperor. The war, however, continued in the Low Countries, to the disadvantage and discredit of the Austrians and Dutch, till it was finished by the treaty of Aix-la-Chapelle, in April 1740. By that treaty Silesia was once more guaranteed to the king of Prussia. It was not long before that monarch's jealousies were renewed and verified; and the empress of Russia's views falling in with those of the empress-queen and the king of Poland, who were unnaturally supported by France in their new schemes, a fresh war was kindled. The king of

Prussia declared against the admission of the Russians into Germany, and his Britannic majesty against that of the French. Upon these two principles all former differences between these two monarchs were forgotten, and the British parliament agreed to pay an annual subsidy of £670,000 to Frederick during the war. The flames of war therefore now broke out in Germany with more violence than ever. The armies of his Prussian majesty, like an irresistible torrent, burst into Saxony; totally defeated the imperial general Brown at the battle of Lowositz; forced the Saxons to lay down their arms, though almost impregnably fortified at Pirna; and the elector of Saxony to flee to his regal dominions in Poland. After this, the king of Prussia was put to the ban of the empire; and the French poured, by one quarter, their armies, as the Russians did by another, into the empire. The conduct of Frederick on this occasion was most determined and most creditable to his fortitude. See PRUSSIA. At last, however, the taking of Colberg by the Russians, and of Schweidnitz by the Austrians, was on the point of completing his ruin, when his most formidable enemy, the empress of Russia, died January 5th, 1762. George II., his only ally, died on the 25th of October 1760. The deaths of these illustrious personages were followed by great consequences. The British ministry of George III. sought to finish the war with honor, and the successor of Catharine, recalled his armies. Frederick the Great was, notwithstanding, so much reduced, that the empress-queen, probably, would have completed his destruction, had it not been for the wise backwardness of other German princes, to annihilate the house of Brandenburg. At first the empress-queen rejected all terms proposed to her, and ordered 30,000 men to be added to her armies. The visible backwardness of her generals to execute her orders, and the new successes obtained by the king of Prussia, at last prevailed on her, however, to agree to an armistice, which was soon followed by the treaty of Hubertsburgh, which secured to Frederick the possession of Silesia. Upon the death of her husband, in 1765, her son Joseph II. who had been crowned king of the Romans in 1764, succeeded him.

This prince showed an active and restless disposition, much inclined to extend his territories by conquest, and to make reformations in the internal policy of his dominions; but he took few proper methods for accomplishing his purposes. Hence he was almost always disappointed; and at last is said to have written for himself the following epitaph: 'Here lies Joseph, unfortunate in all his undertakings.' In 1788 a war commenced betwixt him and the king of Prussia; in which, notwithstanding the impetuous valor of that monarch, Joseph acted with such caution, that his adversary could gain no advantage over him; and an accommodation took place without any remarkable exploit on either side. In 1781 he took the opportunity of the quarrel betwixt Britain and the United Provinces, to deprive the latter of the barrier towns which had been secured to them by the treaty of Utrecht. These indeed had often been of great use to the house of Austria in its state of weakness; but Joseph, conscious of his own strength, looked upon it as derogatory to his honor to allow so many of his cities to remain in the hands of foreigners, and to be garrisoned at his expense. As the Dutch were unable to resist, the imperial orders for evacuating the barrier towns were instantly complied with; nor did the court of France, though then in friendship with Holland, offer to interpose. Encouraged by this success, Joseph next demanded the free navigation of the Scheldt; but, as this would have been very detrimental to the commercial interests of Holland, a flat refusal was given to this requisition. In this the emperor was much disappointed; having flattered himself that the Dutch, intimidated by his power, would yield the navigation of the river as easily as they had done the barrier. Great preparations were made by the emperor, which the Dutch seemed prepared to resist. But, while he appeared so much determined on this acquisition, he suddenly abandoned the project, and proposed exchanging the Netherlands for the duchy of Bavaria. This was opposed by the king of Prussia; and, by the interference of the court of France, the emperor found himself at last obliged also to abandon his other scheme of opening the navigation of the Scheldt. A treaty of peace was concluded, under the guarantee of Louis XVI. wherein the states acknowledged the emperor's sovereignty over the Scheldt from Antwerp to Sestingen; agreed to demolish certain forts, and to pay a sum of money in lieu of some claims which the emperor had on Maestricht, and by way of indemnification for laying part of his territories under water. The treaty with the Dutch was no sooner concluded than a quarrel with the Turks took place, which terminated in an open war. It does not appear that the emperor had at this time any real provocation, but he seems to have acted merely in consequence of his engagements with Russia to reduce the dominions of the grand signior. These engagements, however, did not retard the progress of reformation, which he carried on throughout his dominions with unparalleled rapidity, and which at last produced the revolt of the Austrian Netherlands. In the course of this reform a complete code of laws was compiled. These were at first greatly commended for their humanity, as excluding almost entirely every species of capital punishment; yet, when narrowly considered, the commutations were found to be so exceedingly severe, that the most cruel death would, comparatively speaking, have been an act of mercy Even for small crimes the punishments were severe beyond measure; but the greatest fault of all was, that the modes of trial were so defective, and the punishments so arbitrary, that the most innocent character lay at the mercy of a tyrannical judge. The innovations in ecclesiastical matters were, however, most offensive to his subjects, though some of them were not unreasonable; such as the introduction of the vernacular language instead of the Latin, in administering the sacraments; and the total abolition of the papal supremacy throughout the imperial dominions. Many favors were also

bestowed upon the Jews; and in 1786 the emperor wrote with his own hand to the different corporations in Vienna, requesting that their youths might be received as apprentices in that city. Severe laws against gaming were likewise enacted, and executed with rigor; and heavy restrictions were laid on all the societies of free masons in Germany, while those in the Netherlands were totally suppressed. But the innovations in religious matters were chiefly resented by the Belgians, who had long been remarkable for their attachment to the Romish religion in its most superstitious form. Indeed the alterations in the civil constitutions of the empire were so great, that, even those who were least bigoted in this respect began to fear that their liberties were in danger, and a universal dissatisfaction was excited. The emperor at first behaved very haughtily, and refused to yield the smallest point to his subjects. Finding, however, that a general revolt was ready to take place, and being unable, on account of the Turkish war, to spare such a force as would be necessary to reduce the provinces to obedience, he, in autumn 1787, promised a restoration of their ancient constitution and privileges. His promises, however, were so delusive, and his conduct was so arbitrary and capricious, that in the end of 1789 the states of all the provinces in the Austrian Netherlands came to a resolution of entirely throwing off the yoke. Articles of federal union were drawn up, and a new republic was formed under the title of the United Belgic Provinces. The situation of the emperor's affairs at that time did not allow him to take the measures necessary for preventing this revolt; to which perhaps his ill state of health also contributed; and, continuing daily to grow worse, he sunk under it on the 20th of February 1790, in the fortieth year of his age, and twenty-sixth of his reign.

The leaders of the Belgic revolution, however, soon became so unpopular that they were obliged to fly; and the congress, which had been established as the supreme legislative body, behaved with such tyranny that they became generally detested. Mean time, in 1790, the emperor Joseph was succeeded by his brother Leopold II., under whose administration matters soon took a more favorable turn. By his wisdom, moderation, and humanity, he in a considerable degree retrieved the bad consequences of his predecessor's conduct; having made peace with the Turks, and in some measure regained the allegiance of the Netherlands. But the death of Leopold II., in 1792, occasioned a new change of affairs. His son and successor, Francis II. having taken an early and active part in the war with France, the Belgians once more threw off their allegiance, and petitioned the convention to be united with the French republic. This, in consequence of the success of the republican arms, in 1793 and 1794, was accordingly done, and the ci-devant Austrian Netherlands formed into nine of the new departments of the French republic. That part of Germany which lies on the left or west bank of the Rhine, was also annexed to France. In the year 1801—1805, and 1810, in consequence of three bloody and ruinous wars, Francis II. was obliged to make peace with France on terms more and more humiliating, till the German constitution became, as we have intimated, completely destroyed.

With large armies, maintained at the expense of the occupied countries, Germany remained completely under the power of France till 1813, when fairer prospects opened, and a memorable burst of patriotic zeal, taking advantage of the dawn of liberty in the Peninsula, liberated the German nations. The Confederation of the Rhine, which had stood the seven years' monument of French ambition, on the one hand, and of the self-interest and pusillanimity of some of its states on the other, was then as we have seen dissolved, and the Constitution of Germany was remodeled by the Congress at Vienna; since which its public affairs have remained without external disturbance.

GERME, among shipping, a kind of bark used in the shallows on the coast of Egypt, as drawing but little water. They are strong and well-built; but have no decks. They have one, two, or three masts, according to their sizes. The yards are fixed to the top of the masts, and, as well as the sails, are unmanageable from below. To effect the smallest change, the seaman must go aloft. The burden of these boats is five or six tons. They are chiefly used to convey goods from Alexandria to Rosetta.

GERMEN, the seed bud. See BOTANY. In assimilating the vegetable and animal kingdoms, Linnæus denominates the germen, the ovarium or uterus of plants; and affirms its existence to be chiefly at the time of the dispersion of the male dust by the antheræ; as, after its impregnation, it becomes a seed-vessel. Germen, by Pliny and the ancient botanists, is used to signify a bud containing the rudiments of the leaves.

GERMERSHEIM, a strong town of the Bavarian circle of the Rhine, at the conflux of the Queich and the Rhine. It is surrounded partly by a wall, and partly by the Queich, the Rhine, and marshy grounds; the diet of Frankfort, in 1819, fixed on it as one of the bulwarks of the empire, and appropriated no less than £600,000 sterling for additional works, particularly a double tête de pont on the Rhine. In January, 1794, the French took it, and in May following they were defeated at this place by the Austrians. Population 1500. Five miles south of Spire, and eight south of Manheim.

GERMINATION, among botanists, also comprehends the precise time which the seeds take to rise, after they have been committed to the soil. The different species of seeds are longer or shorter, in rising, according to the degree of heat which is proper to each. Millet, wheat, and several of the grasses, rise in one day; blite, spinach, beans, mustard, kidney-beans, turnips, and rocket, in three days; lettuce and dill, in four; cucumber, gourd, melon, and cress, in five; radish and beet in six; barley in seven; orach in eight; purslane in nine; cabbage in ten; hyssop in thirty; parsley in forty or fifty days; peach, almond, walnut, chestnut, pæony, horned poppy, hypecoum, and ranunculus falcatus, in one year; rose-bush, cornel-tree, haw-

thorn, medlar, and hazel-nut in two. The seeds of some species of orchis, and of some liliaceous plants, never rise at all. Some seeds require to be sown almost as soon as they are ripe, otherwise they will not sprout or germinate. Of this kind are the seeds of coffee and fraxinella. Others, particularly those of the pea-bloom flowers, preserve their germinating faculty for a series of years. Mr. Adanson asserts, that the sensitive plant retains that virtue for thirty or forty years. Air and water are the agents of germination. The humidity of the air alone makes several seeds to rise that are exposed to it. Seeds too are observed to rise in water, without the intervention of earth; but water without air is insufficient. Mr. Homberg's experiments on this head are decisive. He put several seeds under the exhausted receiver of an air-pump, with a view to establish something certain on the causes of germination. Some of them did not rise at all; and the greatest part of those which did, made very weak and feeble productions. Thus it is for want of air, that seeds, which are buried at a very great depth in the earth, either thrive but indifferently, or do not rise at all. They frequently preserve, however, their germinating virtue for many years within the bowels of the earth; and it is not unusual, upon a piece of ground being newly dug to a considerable depth, to observe it soon after covered with several plants, which had not been seen there in the memory of man. Were this frequently repeated, it would doubtless be the means of recovering certain species of plants which are regarded as lost; or which perhaps have never come to the knowledge of botanists. Some seeds require a greater quantity of air than others. Thus purslane, which does not rise till after lettuce in the free air, rises before it in vacuo; and both prosper but little, or perish altogether, while cresses vegetate as freely as in the open air.

GERONA, GIRONA, or GIRONNA, an ancient town of Spain, in Catalonia, and a bishop's see. In 1694 it was taken by the French and restored at the peace of Ryswick. In 1705 it was taken by the Austrians, and again by the French in 1711, under the duke of Noailles. In the year 1809 this city endured one of the most extraordinary sieges recorded in history; but was at length, after the most vigorous and honorable defence, compelled to yield to the French. We regret we can only in this place refer to Dr. Southey's excellent narrative of this siege, 'Peninsular War,' vol. ii. p. 520.

Gerona is built in the form of a triangle, on the slope, and at the foot of a steep mountain; it is surrounded with good flanked walls, and covered by two forts erected on the mountain. Besides these, it has five fortified buildings. The streets are narrow and winding, but the houses respectable. There are thirteen monasteries in the place, and about 14,000 inhabitants. Here is also an academy on a large scale, with professors of Latin, rhetoric, philosophy, and divinity; the students are numerous, and form one of the chief supports of the place. Gerona stands near the Onhal, forty-four miles south of Perpignan, and forty-seven north-east of Barcelona.

GERONTES, from γερων, in antiquity, a kind of judges, or magistrates, in ancient Sparta, answering to what the Areopagites were at Athens. See AREOPAGUS. The senate of gerontes was called gerusia, i. e. the assembly or council of old men. They were originally instituted by Lycurgus; their number, according to some, was twenty-eight; and according to others thirty-two. They governed in conjunction with the king, whose authority they were intended to balance, and to watch over the interests of the people. Polybius defines their office in few words, when he says, per ipsos, et cum ipsis, omnia administrari. None were admitted into this office under sixty years of age, and they held it for life. They were succeeded by the ephori.

GEROPOGON, in botany, a genus of the polygamia æqualis order, and syngenesia class of plants; natural order forty-ninth, compositæ. The receptacle is paleaceous, with the points of the paleæ sharp or bristly: CAL. simple: SEEDS in the disc have a feathered pappus, in the radius have a pappus of five awns. Species three; natives of Italy.

GERS, a department of France, bounded on the north by those of Landes, and Lot and Garonne; on the east by that of Upper Garonne; on the south by those of the Upper and Lower Pyrenees; and on the west by that of Landes. It includes the ci-devant provinces of Armagnac and Gascony; and is wholly inland, having a territorial extent of 2620 square miles, and 286,500 inhabitants. It is divided into the five arrondissements of Auch, Condom, Lectoure, Lombez, and Mirande. It is principally devoted to pasturage and the cultivation of the grape. Auch is the capital.

GERS, a river of France, which rises in the department of the Upper Pyrenees, crosses and gives name to that of the Gers, and falls into the Garonne, three miles south-east of Agen.

GERSAU, a town in the Swiss canton of Schweitz, on the lake of Lucern. It stands among mountains, and is accessible only by a single and hazardous path. It became, in 1315, independent, and is still the smallest free state known, its whole territory being only two leagues long, and half a league broad. Population 1500.

GERTRUYDENBERG, a small strong town of the Netherlands, situated on the Biesbosch, an arm of the sea, in North Brabant. It has about 1300 inhabitants, chiefly employed in salmon fishing, and, in 1709, it was the scene of a long negociation between Louis XIV. and the allied powers, and was taken by the French, under Dumouriez, on 4th May, 1793; ten miles south-east of Dort, and seven north-east of Breda.

GERVAISE, or GERVASE, of Tilbury, a famous English writer of the thirteenth century; born at Tilbury on the Thames. He was nephew to Henry II., king of England; and was in great credit with Otho IV. emperor of Germany, to whom he dedicated a Description of the World, and a Chronicle. He also composed a History of England, a History of the Holy Land, and other works.

GERUMENHA, or GERUMENHI, an ancient town of Portugal, in Alentejo, with a strong castle, seated on a hill, near the Guadiana. In 1662 it stood a siege of a month, before it surrendered to the Spaniards. It lies eighteen miles below Badajoz.

GER'UND, *n. s.* Lat. *gerundium*. A kind of verbal noun, which governs cases like verbs, and in Latin ends in di, do, and dum.

GERYON, or GERYONES, in fabulous history, a king of Gades, in Iberia, who had three bodies, and fed his cattle with human flesh. This monster was slain by Hercules, who carried off his cattle. Hyginus makes him the son of Chrysaor, brother of the winged horse Pegasus, and the grandson of Neptune, by Medusa, one of the furies. The fable is supposed to mean that he was a king of three contiguous Spanish islands; or, as others think, there were three kings brethren, so united as to seem to have but one soul.

GESNER (Conrad), M. D., a celebrated physician and naturalist, born at Zurich in 1516. Having finished his studies in France, he travelled into Italy, and taught medicine and philosophy at Lausanne, with extraordinary reputation, and excelled so much in natural history, that he was surnamed the German Pliny. He died December 9th, 1565, leaving many works behind him, on botany, medicine, grammar, natural history, &c. Of these the principal are, 1. A History of Animals, Plants, and Fossils; 2. Bibliotheca Universalis; a Greek and Latin Lexicon. Boerhaave emphatically styled him Monstrum Eruditionis, 'a prodigy of learning.' 'Those indeed,' Mr. Coxe observes in his Letters on Switzerland, 'who are conversant with the works of this great naturalist, cannot repress their admiration at the amplitude of his knowledge in every species of erudition, and the variety of his discoveries in natural history. Their admiration is still further augmented, when they consider the gross ignorance of the age which he helped to enlighten, and the scanty succours he possessed to aid him in thus extending the bounds of knowledge; that he composed his works, and made those discoveries which would have done honor to the most enlightened period, under the complicated evils of poverty, sickness, and domestic uneasiness.' During his last twenty-four years, however, his salary, as a professor, enabled him to live in easy circumstances.

GESNER (John Matthew), an acute German critic, born at Neuburg, in 1691. After superintending the public school of Weinheim for eleven years, he removed to Anspach, and thence to Gottingen, where he was made professor of humanity, and public librarian, &c. He died at Gottingen in 1761. His most esteemed works are, an excellent Latin Dictionary, and his editions of the Classics.

GESNER (Solomon), the celebrated author of the Death of Abel, was born at Zurich in 1730. In his early years he showed no signs of superior abilities. When he arrived at a proper age, he chose his father's profession, viz. that of a printer. In 1752 he made a tour through Germany; and when at Berlin was admitted into a literary society, of which Gleim and Lessing were members. Every member read in turn some pieces of his own composition, and Gesner was very desirous of submitting to these able critics a small work, which was his first attempt. The piece which he wished, but had not eventually the courage to show, was his poem, entitled Night, which he published on his return to Zurich in 1753. The success of this essay emboldened him to publish a pastoral romance, called Daphnis, in three cantos. The applause deservedly bestowed upon this performance, induced him to publish his Idylls, and other rural poems in imitation of Theocritus. Pastoral poetry, which was then little known in Germany but by translations, began to be preferred to every other kind. These Idylls were the favorite object of his pursuit, and that part of his work which acquired him the greatest reputation. His Death of Abel was first published in 1758. It is written, like the rest of his pieces, in poetical prose; and went through three editions in one year. The French edition was followed by others, in Italian, Dutch, Danish, and, lastly, two in English, one in prose and the other in verse. He next published his First Navigator, a poem in three cantos, which many consider as his master-piece. He produced, likewise, in the dramatic style, Evander and Alcimne in three acts; and Erastus in one act, which was represented with applause at Leipsic and Vienna. In 1765 he was called to the grand council, in 1767 to the less; in 1768 he was appointed bailiff of Eilibach; that of the four guards in 1776; and in 1781 superintendant of waters, which office in 1787 was continued to him for six years. He died of a paralytic attack in 1788, aged fifty-eight. As a pastoral poet, Gesner, if he has been equalled by any, has been excelled by none. His pastoral romance of Daphnis is not inferior, in natural simplicity, to the celebrated work of Longus; but it surpasses it far in variety of images and incident. Erastus and Evander are instructive and interesting poems, on account of the contrast between the world and nature which reigns throughout them; and his First Navigator unites the mildest philosophy with all the splendor and imagery of Fairy land. The late empress, Catharine II., presented him with a gold medal as a mark of her esteem. Travellers thought they had seen only the half of Switzerland, if they had not been in the company of Gesner, or procured some of his drawings.

GESNERIA, in botany, a genus of the angiospermia order, and didynamia class of plants; natural order fortieth, personatæ: CAL. quinquefied, and placed on the germen: COR. incurvated and then recurvated: CAPS. inferior and bilocular. Species eleven; all South American shrubs.

GESSORIACUM, in ancient geography, a port and station for ships of the Morini in Gallia Belgica. In Cæsar's time, according to Dio, there was no town; but Florus speaks of it as one; and the Gessoriacenses Muri, are mentioned by Eumenius in his Panegyric. The author of Tabula Theodosiana, commonly called Peutenger's map, says expressly, that Gessoriacum

was in his time called Bononia. It is now called Boulogne.

GEST, *n. s.* / GESTA'TION, *n. s.* / GESTIC'ULATE, *v. n.* / GESTICULA'TION, / GES'TURE, *n. s.* & *v. a.* } Lat. *gero*, to bear. To bear or carry one's self in a particular way; a deed; representation; journal; a stage: to bear, as the parent its young in the womb: posture expressive of sentiment: to ridicule; to imitate.

And after that his dice turned on chaunces,
So was he either glad or saide, Alas,
And helde after his *gestes*, are his paas;
And after suche answers as he hadde,
So weren his daies sory other gladde.
Chaucer. Troilus and Creseide.

Women full good, and trewe, and vertuous,
Witnesse on hem that dwelte in Cristes hous,
With martyrdom they preved hir constance.
The Romain *gestes* maken remembrance
Of many a very trewe wif also.
Chaucer. The Merchantes Tale.

Who fair them quites, as him beseemed best,
And goodly can discourse with many a noble *gest*.
Spenser.

Our attire disgraceth it, it is not orderly read, nor *gestured* as beseemeth. *Hooker.*

When we make profession of our faith, we stand; when we acknowledge our sins, or seek unto God for favour, we fall down; because the *gesture* of constancy becometh us best in the one, in the other the behaviour of humility. *Id.*

I'll give you my commission,
To let him there a month, behind the *gest*,
Prefixed for's parting. *Shakspeare. Winter's Tale.*

To the dumbness of the *gesture*
One might interpret. *Id. Timon of Athens.*

He undertook so to *gesture* and muffle up himself in his hood, as the duke's manner was, that none should discern him. *Wotton.*

Grace was in all her steps, heaven in her eye,
In every *gesture* dignity and love!
Milton's Paradise Lost.

He distinctly sets down the *gests* and progress thereof. *Browne.*

Aristotle affirmeth the birth of the infant, or time of its *gestation*, extendeth sometimes unto the eleventh month; but Hippocrates avers that it exceedeth not the tenth. *Id.*

Ah, my sister, if you had heard his words, or seen his *gestures*, when he made me know what and to whom his love was, you would have matched in yourself those two rarely matched together, pity and delight. *Sidney.*

Why in viviparous animals, in the time of *gestation*, should the nourishment be carried to the embryo in womb, which at other times goeth not that way?
Ray on the Creation.

Every one will agree in this, that we ought either to lay aside all kinds of *gesture*, or at least to make use of such only as are graceful and expressive.
Addison's Spectator.

Their classical profiles, and glittering dresses,
Their large black eyes, and soft seraphic cheeks,
Crimson as cleft pomgranates, their long tresses,
The *gesture* which enchants, the eye that speaks,
The innocence which happy childhood blesses,
Made quite a picture of these little Greeks;
So that the philosophical beholder
Sighed for their sakes—that they should e'er grow older. *Byron. Don Juan.*

GESTRICIA, a province of Sweden, in the government of Gefleborg, about 1240 square miles in extent, and having a population of 27,000 North and west it is mountainous and barren, but in the south it has beautiful valleys and plains, producing corn, flax, hemp, hops, &c., but the inhabitants depend chiefly on their forests, iron mines, and iron works. The chief town is Gefle.

GET, *v. a.* & *v. n.* / GET'TER, *n. s.* / GET'TING. } Sax. ȝetan, ȝe tan; Goth. *geta*; pret. I got, anciently gat; part. pass. got, or gotten. To obtain, whether by force or otherwise; to arrive at any state or posture: thus, to *get off* is to dispose of or escape; to *get over*, to conquer or suppress; to *get up*, to arise from repose or from a seat; to remove from one place to another; the act of acquisition or increase: sometimes used in the sense of *beget*. 'To *get*, in all its significations,' says Dr. Johnson, 'both active and neutral, implies the acquisition of something, or the arrival at some state or place by some means; except in the use of the preterite compound, which often implies mere possession: as, *he* has got *a good estate*, does not always mean that he has acquired, but barely that he possesses it. So we say, *the lady* has got *black eyes*, merely meaning that she has them.'

Wisdom is the principal thing, therefore *get* wisdom; and with all thy *getting*, *get* understanding.
Prov. iv. 7.

What hast thou to doen with hir live,
Thy falshed every man maie fele,
For thou ne canst no cattell *gete*,
But livest in londe as a lorell,
With glosing *gettest* thou thy mete.
Chaucer. The Plowmans Tale.

Have ye not seen sometime, a pale face
(Among a prees) of him that hath ben lad
Toward his deth; wher as he *geteth* no grace,
And swiche a colour in his face hath had,
Men mighten know him that wos so bestad,
Amonges all the faces in that route;
So stant Custance, and loketh hire aboute.
Chaucer. The Man of Lawes Tale.

Yet being pregnant still with powerful grace,
And full of fruitful Love, that loves to *get*
Things like himselfe, and to eplarge his race,
His second brood, though not of powre so great,
Yet full of beautie, next he did beget,
An infinite increase of angels bright,
All glistring glorious in their Maker's light.
Spenser's Hymnes.

Such losels and scatterlings cannot easily, by any constable, or other ordinary officer, be *gotten*, when they are challenged for any such fact. *Spenser.*

Thine be the cosset, well hast thou it *got*. *Id.*

You knew he walked o'er perils, on an edge
More likely to fall in than to *get* over.
Shakspeare. Henry IV.

Get on thy boots; we'll ride all night.
Shakspeare.

Take no repulse, whatever she doth say;
For *get* you gone, she doth not mean away. *Id.*

Henry the sixth hath lost
All that which Henry the fifth had *gotten*. *Id.*

Peace is a very lethargy, a *getter* of more bastard-children than war's a destroyer of men. *Id.*

If they *get* ground and vantage of the king,
Then join you with them like a rib of steel. *Id.*

Those boys are boys of ice; they'll none of her; sure they are bastards to the English, the French never *got* them. *Id.*

Get you to bed on the instant; I will be returned forthwith. *Id. Othello.*

The fox bragged what a number of shifts and devices he had to *get* from the hounds, and the cat said he had but one, which was to climb a tree. *Bacon.*

Who hath a state to repair may not despise small things; and it is less dishonourable to abridge a petty charge than to stoop to petty *gettings*. *Id.*

Sheep will *get up* betimes in the morning to feed against rain. *Id. Nat. History.*

Then forcing thee, by fire he made theo bright;
Nay thou hast got the face of man. *Herbert.*

They might *get over* the river A vonat Stratford, and *get* between the king and Worcester. *Clarendon.*

Phalantus was entrapped, and saw round about him but could not *get* out. *Sidney.*

Women with studied arts they vex:
Ye gods, destroy that impious sex:
And if there must be some to invoke
Your powers, and make your altars smoke,
Come down yourselves, and, in their place,
Get a more just and nobler race. *Waller.*
Like jewels to advantage set,
Her beauty by the shade does *get*. *Id.*
All things, but one, you can restore;
The heart you *get* returns no more. *Id.*

The roving fumes of quicksilver, in evaporating, would oftentimes fasten upon the gold in such plenty, as would put him to much trouble to *get* them off from his rings. *Boyle.*

Most of these things might be more exactly tried by the Torricellian experiments, if we could *get* tubes so accurately blown that the cavity were perfectly cylindrical. *Id.*

When an egg is made hard by boiling, since there is nothing that appears to *get* in at the shell, unless some little particles of the water, it is not easy to discover from whence else this change proceeds than from a change made in the texture of the parts. *Id.*

Whatever thou dost, deliver not thy sword;
With that thou mayest *get off*, though odds oppose thee. *Dryden.*
O heaven, in what a lab'rinth am I led!
I could *get* out, but she detains the thread. *Id.*

The laughing sot, like all unthinking men,
Bathes and *gets* drunk; then bathes and drinks again. *Id.*

If you'll take 'em as their fathers *got* 'em, so and well; if not, you must stay 'till they *get* a better generation. *Id.*

Having no mines, nor any other way of *getting* or keeping of riches but by trade, so much of our trade as is lost, so much of our riches must necessarily go with it. *Locke.*

Lying is so cheap a cover for any miscarriage, and so much in fashion, that a child can scarce be kept from *getting* into it. *Id.*

Though creditors will lose one-fifth of their principal and use, and landlords one-fifth of their income, yet the debtors and tenants will not *get* it. *Id.*

Any tax laid on foreign commodities in England raises their price, and makes the importer *get* more for them; but a tax laid on your home-made commodities lessens their price. *Id.*

Two or three men of the town are *got* among them. *Tatler.*

After having *got* out of you every thing you can spare, I scorn to trespass. *Guardian.*

'Tis very pleasant to hear the lady propose her doubts, and to see the pains he is at to *get over* them. *Addison.*

By the marriage of his grandson Ferdinand he *got* into his family the kingdoms of Bohemia and Hungary. *Id.*

Imprisoned fires, in the close dungeons pent,
Roar to *get* loose, and struggle for a vent;
Eating their way, and undermining all,
'Till with a mighty burst whole mountains fall. *Id.*

Though the king could not *get* him to engage in a life of business, he made him however his chief companion. *Id. Spectator.*

The man who lives upon alms, *gets* him his set of admirers, and delights in superiority. *Addison.*

Sphinx was a monster that would eat
Whatever stranger she could *get*,
Unless his ready wit disclosed
The subtle riddle she proposed.
Id. Whig Examiner.

Those that are eager to *get* abundance of this world, and solicitous to lay up what they have *gotten*, little consider what may become of it, and in how little a time it may be all taken from them. *Henry. Isaiah.* xv. 7.

There is a sort of men who pretend to divest themselves of partiality on both sides, and to *get* above that imperfect idea of their subject which little writers fall into. *Pope on Homer.*

A knot of ladies, got together by themselves, is a very school of impertinence. *Swift.*

Wood, to *get* his halfpence *off*, offered an hundred pounds in his coin for seventy in silver. *Id.*

This practice is to be used at first, in order to *get* a fixed habit of attention, and in some cases only. *Watts.*

Get by heart the more common and useful words out of some judicious vocabulary. *Id.*

Our studies will be for ever, in a very great degree, under the direction of chance; like travellers we must take what we can *get*, and when we can *get* it. *Sir J. Reynolds.*

Yes. I nursed thee
Because thou wert my firstborn, and I knew not
If there would be another unlike thee,
That monstrous sport of nature. But *get* hence
And gather wood!
Byron. Deformed Transformed.

GETA (M. Septimius Antonius), the son of the emperor Severus, and brother to Caracalla. In the eighth year of his age he was moved with compassion at the fate of some of the partisans of Niger and Albinus, who were to be executed, and his father struck with his humanity retracted the sentence. After Severus's death, he reigned at Rome conjointly with his brother; but Caracalla, who envied his virtues and was jealous of his popularity, ordered him to be poisoned; and, this not being effected, he murdered him in the arms of his mother Julia, who, in attempting to defend him, received a wound in her arm, from the hand of her worthless son, A. D. 212. Geta had not reached the twenty-third year of his age, and the Romans lamented the death of so virtuous a prince, while they groaned under the cruelties and oppressions of Caracalla.

GETA, is a town of Sweden, on the north coast of the island of Aland. Long. 9° 50′ E., lat. 60° 25′ N.

GETÆ, an ancient nation of Thrace, who dwelt on both sides of the Ister, near Scythia, supposed to be the ancestors of the Dacians and Goths; or, according to others, of the Walachians or Moldavians.

GETHSEMANE, in ancient geography, a village at the foot of Mount Olivet, whither our

Lord sometimes retired in the night-time. It was in a garden belonging to this village that he suffered his memorable agony in which he sweated blood; and was arrested by Judas and his band. The place is described by Maundrel as an even plot of ground, not above fifty-seven feet square, lying between the foot of Mount Olivet and the brook Cedron.

GETHYLLIS, in botany, a genus of the monogynia order, and dodecandria class of plants; natural order ninth, spathaceæ: COR. six-cleft, and the stamina are in six different directions: CAPS. is trilocular. Species five; all Cape herbs.

GEW'GAW, *n. s.* & *adj.* ȝeȝaƿ; Fr. *joyau;* à Lat. *gaudendo.* That which is splendid or showy in appearance without sterling value; trifling.

That metal they exchanged for the meanest trifles and *gewgaws* which the others could not bring. *Abbot.*

Let her love whom she will I scorn to woo her,
While she stays with me I'll be civil to her;
But if she offers once to move her wings
I'll fling her back all her vain *gewgaw* things.
Buckingham.

As children, when they throw one toy away,
Straight a more foolish *gewgaw* comes in play.
Dryden.

Prefer that which Providence has pronounced to be the staff of life, before a glittering *gewgaw* that has no other value than what vanity has set upon it. *L'Estrange.*

When we load it (the head) with a pile of supernumerary ornaments, we destroy the symmetry of the human figure, and foolishly contrive to call off the eye from great and real beauties, to childish *gewgaws*, ribands, and bone-lace. *Addison.*

The first images were fans, silks, ribands, laces, and many other *gewgaws*, which lay so thick that the whole heart was nothing else but a toyshop. *Id. Guardian.*

Let him that would learn the happiness of religion, see the poor *gewgaw* happiness of Feliciana. *Law's Serious Call.*

——— Man,
Thou pendulum betwixt a smile and tear,
Ages and realms are crowded in this span,
This mountain whose obliterated plan
The pyramid of empires pinnacled
Of glory's *gewgaws* shining in the van,
Till the sun's rays with added flame were filled!
Where are its golden roofs? Where those who dared to build? *Byron. Childe Harold.*

GEUM, avens, or herb bennet, a genus of the polygamia order, and icosandria class of plants; natural order thirty-fifth, senticosæ: CAL. cleft into ten parts; petals five: and each SEED has a jointed awn. There are ten species; of which the two following, both natives of Britain, are the most remarkable:—

G. rivale, with a very thick, fleshy, and fibrous root, hairy leaves, and upright stalks, ten or twelve inches high, terminated by purple flowers nodding on one side. Of this there are varieties with red and with yellow flowers. The root powdered is said to be efficacious in curing the tertian ague; and it is daily used for this purpose by the Canadians and other inhabitants of North America. Sheep and goats eat the plant; cows, horses, and swine, are not fond of it.

G. urbanum, with thick fibrous roots of an aromatic taste, rough serrated leaves, and upright, round, hairy stalks, terminated by large yellow flowers, succeeded by globular fruit. The roots, gathered in spring before the stem comes up, and infused in ale, give it a pleasant flavor, and prevent its growing sour. Infused in wine, they have a stomachic virtue. The taste is mildly austere and aromatic, especially when the plant grows in warm dry situations; but in moist shady places it hath little virtue. Both these species are easily propagated either by the root or seed.

GEX, a town in the south-east of France, in the department of the Ain, noted for watch-making. It stands near the foot of Mount Jura, and contains a population of 2500; ten miles west of Geneva.

GEZULA, or GAZULA, a country of Africa, south of Morocco, the inhabitants of which are allies of the emperor. They are numerous, and are reckoned the most ancient people of Africa. They have no towns, but live in camps and villages, and are hospitable to strangers. They have an annual fair, which lasts two months. The country abounds in corn, pasture, copper and iron.

GHAST'FUL, *adj.*
GHAST'LY, *n. s.*
GHAST'LINESS, *n. s.*
GHAST'NESS, *n. s.*
GHOST, *n. s.*, *v. n.* & *v. a.*
GHOST'LINESS, *n. s.*
GHOST'LY, *adj.*
} Sax. ȝaſt, a ghost, and ƿulle; Belgic *gheest;* Teut. *geist;* Swed. *gast.* A spiritual appearance; a being as opposed to whatever is material.

The name of the third person in the Holy Trinity; the soul of man; and by use applicable to whatever has a character of death, or is horrid, pale, emaciated.

Save and defend us from our *ghostly* enemies. *Common Prayer.*

There stood the temple of Mars Armipotent,
Wrought all of burned stele; of which the' entree
Was longe and streite, and *gastly* for to see.
Chaucer. The Knightes Tale.

And thou shalt understond, that marchandise is in two maneres; that on is bodily, and that other is *gostly:* that on is honest and leful, and that other is dishonest and unleful. *Id. The Persones Tale.*

Here will I dwell apart,
In *ghastful* grave, 'till my last sleep
Do close mine eyes;
Help me, ye baneful birds, whose shrieking sound
Is sign of dreary death. *Spenser's Pastorals.*

And when my weary *ghost*, with griefe outworne,
By timely death shall winne her wished rest,
Then let this plaint unto his eares be borne,
That blame it is to him that armes profest,
To let her die whom he might have redrest.
Id. Faerie Queene.

But, suddein catching hold, did her dismay
With quaking hands, and other signes of feare
Who, full of *ghastly* fright and cold affray,
Gan shut the door. *Id.*

Our common necessities, and the lack which we all have, as well of *ghostly* as of earthly favours, is in each kind easily known; but the gifts of God, according to these degrees and times, which he in his secret wisdom seeth meet, are so diversly be-

stowed, that it seldom appeareth what all receive: what all stand in need of seldom lieth hid. *Hooker.*

Often did I strive
To yield the *ghost*; but still the envious flood
Kept in my soul. *Shakspeare. Richard III.*

Their shadows seem
A canopy most fatal, under which
Our army lies ready to give up the *ghost*.
Shakspeare.

Vex not his *ghost*: O, let him pass! He hates him,
That would upon the rack of this rough world
Stretch him out longer. *Id. King Lear.*

Look you pale, mistress?
Do you perceive the *ghastness* of the eye?
Shakspeare.

Julius Cæsar
Who at Philippi the good Brutus *ghosted*,
There saw you labouring for him. *Id.*

Why looks your grace so heavily to-day?
—O, I have past a miserable night;
So full of ugly sights, of *ghastly* dreams,
So full of dismal terrour was the time. *Id.*

The *ghostly* father now hath done his shrift.
Id.

The *ghosts* and monster-spirits that did presume
A body's privilege to assume
Vanish again invisibly
And bodies gain again their visibility. *Cowley.*

——— Marke what uglinesse
Stares through the sightlesse eye-holes from within.
Note those leane craggs and with what *gastlinesse*
That horrid countenance doth seeme to grin.
Geo. Withers.

Death
Grinned horrible a *ghastly* smile, to hear
His famine should be filled.
Milton's Paradise Lost.

To be less than gods
Disdained; but meaner thoughts learned in their flight,
Mangled with *ghastly* wounds through plate and mail.
Milton.

Yet Cromwell's *ghost* smile with contempt to see
Old England struggling under slavery. *Marvell.*

He could reduce all things to acts,
And knew their natures by abstracts.
Where entity and quiddity,
The *ghosts* of defunct bodies fly;
Where truth in person does appear
Like words congealed in northern air.
Hudibras.

Euryalus, taking leave of Lucretia, precipitated her into such a love-fit, that within a few hours she *ghosted*. *Sidney.*

Those departed friends, whom at our last separation we saw disfigured by all the *ghastly* horrours of death, we shall then see assisting about the majestick throne of Christ, with their once vile bodies transfigured into the likeness of his glorious body, mingling their glad acclamations with the hallelujahs of thrones, principalities, and powers. *Boyle.*

The mighty *ghosts* of our great Harrys rose,
And armed Edwards looked with anxious eyes,
To see this fleet among unequal foes,
By which fate promised them their Charles should rise. *Dryden.*

I did not for these *ghastly* visions send;
Their sudden coming does some ill portend.
Id.

I, who make the triumph of to-day,
May of to-morrow's pomp one part appear,
Ghastly with wounds, and lifeless on the bier?
Prior

What beckoning *ghost* along the moonlight shade
Invites my steps, and points to yonder glade.
Pope

But in his private thoughts and busy brain,
Thousand thin forms and idle fancies flit;
The three-shaped Sphinx; and direful Harpy's train,
Which in the world had never being yet;
Oft dreams of fire, and water; loose delight;
And oft arrested by some *ghostly* spright,
Nor can he think, nor speak, nor move, for great affright. *Fletcher's Purple Island.*

There would he dream of graves and corses pale,
And *ghosts* that to the charnel-dungeon throng,
And drag a length of clanking chain, and wail,
Till silenced by the owl's terrific song;
Or blast that shrieks by fits the shudderlng aisles along. *Beattie.*

'Besides, I hate to sleep alone,' quoth she,
The matron frowned. 'Why so?'—'For fear of *ghosts*,'
Replied Katinka; 'I am sure I see
A phantom upon each of the four posts.' *Byron.*

GHAUTS (Arab. maber, a pass) is a term particularly applied to certain ranges of hills, which run north and south, through the Indian peninsula; sometimes the highland is called Balaghaut (above the pass), and the bar Pagaenghauts (below the pass).

Ghauts, The Western, are the most elevated of these ranges, and extend from Cape Comorin to the Tuptee, or Surat River, where they do not terminate in a point, or promontory; but bend eastward in a wavy line parallel to the river, and are afterwards lost among the hills in the neighbourhood of Boorhanpoor. Their proper name, in the language of Hindostan, is Sukhein, Purbut, or the hills of Sukhein. They rise to an elevation of between 3000 and 4000 feet from the level of the sea. In its line along the Tuptee this ridge forms several passes, or ghauts, from which there is a descent into the low country of Khandesh. In their whole extent the Western Ghauts, according to Mr. Hamilton, include thirteen degrees of latitude, with the exception of a break in the ridge, about sixteen miles wide, in the latitude of Paniany, through which the River Paniany takes its course from the Coimbetoor province. Their distance from the sea coast is seldom more than seventy miles, commonly about forty, and they are frequently visible from the sea. Within one short space betwixt Barcelore and Mirjaow they approach within six miles of the sea. The altitude of these hills is sufficiently great to prevent the body of the clouds from passing over them, and accordingly the alternate north-east and south-west winds (called the monsoons) occasion a rainy season on the windward side of the mountains only. In the parallel of Surat this cause ceases to operate, and here therefore the south-west wind, no longer opposed by a wall of mountains, carries its supply of moisture without interruption over the surface of the country. About the fifteenth degree of north latitude the Western Ghauts, although steep and stony, are by no means rugged, or broken with rocks; but the stones are buried in a rich mould, and in many places are not seen without digging. Here therefore these fine mountains are covered with stately forests. There are no bam-

boos that can be compared with those that grow in this part of them. They compose a great part of the forest, growing in detached clumps, with open spots between; and equal in height the most lofty palms. Near Cutaki, about half way up the Ghauts, the teak becomes common.

GHAUTS, THE EASTERN, are commonly described as commencing in the south, about lat. 11° 20′ N., to the north of the Cavery, and extending with little interruption, in a straight line to the banks of the Khrisna in lat. 16° N., separating the two Carnatics; the one is called the Carnatic Balaghaut, or above the Ghauts, the true Carnatic; the other the Carnatic Payeenghaut, or below the Ghauts, extending along the coast of Coromandel. About the latitude of Madras, the highest part of this ridge is estimated at 3000 feet; and Bangaloor, which is within the chain, was found by barometrical observation to be 2901 feet above the level of the sea.

The component parts of these mountains are granite, composed of white feltspar and quartz, with dark green mica in a small proportion. The particles are angular, and of moderate size. The rocks appear stratified, but the strata are broken and confused. The country above the Eastern Ghauts rises into swells like the land in many parts of England, and is overlooked by the high barren peaks which close the view to the east. The soil here is very poor, and covered with copse, having a few large trees intermixed; the whole of the copse land serving for inferior pasture. About two miles from Naiekan Eray a torrent in the rainy season brings down from the hills a quantity of iron ore in the form of black sand, which, in the dry season, is smelted, each forge paying a certain quantity of iron for permission to carry on the work.

GHEBERS, or GUEBERS, is the name by which the fire-worshippers of Persia are generally known. Those of this sect are dispersed through the country, and are the remains of the ancient Persians, or followers of Zoroaster. They have a suburb at Ispahan, called Gaurabad, or the town of the Gaurs, where they are employed in the meanest drudgery: some of them are dispersed through other parts of Persia; but they principally abound in Kerman, the most barren province in the whole country, where the Mahommedans allowed them liberty and the exercise of their religion. Several of them fled many ages ago into India, and settled about Surat, where their posterity still remain. They are ignorant, inoffensive people, extremely superstitious, zealous for their rites, rigorous in their morals, and honest in their dealings. They believe a resurrection and a future judgment, and worship only one God. Although they perform their worship before fire, and direct their devotion towards the rising sun, for which they have an extraordinary veneration, yet they strenuously maintain, that they worship neither; but that, as these are the most expressive symbols of the Deity, they turn towards them in their devotional services. Zoroaster, the founder of this sect, maintained that there were two principles, one the cause of all good, the other the cause of all evil: and, abominating the adoration of images, his followers worshipped God only by fire; which they looked upon as the brightest and most glorious symbol of Oromasdes, or the good God; as darkness is the truest symbol of Arimanius, or the evil god. Zoroaster taught his followers, that fire was the truest shechinah of the divine presence; that the sun being the most perfect fire, God had there the throne of his glory, and the residence of his divine presence in a peculiar manner; and next to this in our elementary fire: and, therefore, he ordered them to direct all their worship to God, first towards the sun, which they called Mithra, and next towards their sacred fires: and, when they came before these fires to worship, they always approached them on the west side, that having their faces towards them, and also towards the rising sun at the same time, they might direct their worship towards both.

GHENT, or GAUNT, a city of the Netherlands, the capital of East Flanders. It is a bishop's see, and seated on four navigable rivers, the Scheldt, the Lys, the Lievre, and the More, which, with a great number of canals, run through it, and divide it into twenty-six little isles, over which there are upwards of 300 wooden bridges.

Ghent is surrounded with walls and other fortifications, but the ramparts are now chiefly used as promenades. The streets are large and well paved, the market-places spacious, and the houses built mostly of brick. The large market-place is remarkable for a statue of Charles V. That of Cortere has a fine walk, between several rows of trees. In 1737 an opera-house was built here, and a guard-house for the garrison. Near the town is a very high tower, with a handsome clock and chimes. The great bell weighs 11,000 pounds. The cathedral is remarkable both for its outward appearance, and the splendor and richness of its interior; and here is a subterraneous church. The Benedictine abbey of St. Peter is also well worth notice, the church and library being elegant, and the establishment richly endowed. Its paintings and tapestry are much admired. The inside of this and several of the eight churches in Ghent is of marble. Ghent was anciently the capital of the Nervii, and after them of the Vandals, who gave it the name of Wanda, or Vanda, whence Ganda and Ghent are supposed to have been derived. Odoacer of Flanders first surrounded it with walls; and in 1397 Philip, the twenty-fifth earl of Flanders, enlarged it. Prince John, the third son of Edward III., of England, was born in it, and hence named John of Gaunt; as was also the emperor Charles V.; but the inhabitants have no reason to venerate his memory; for, by his repeated oppressions, he provoked them to revolt in 1539; upon which he put to death twenty-six of the principal citizens, banished many others, and confiscated their estates; he at the same time deprived the city of its privileges, arms, and artillery; fined the citizens 12,000,000 of crowns, and ordered the magistrates to walk in procession with ropes about their necks. Ghent is famous for the pacification signed here, in 1576, for settling the tranquillity of the seventeen provinces. In was taken by Louis XIV., in 1678, but restored at the treaty of Nimeguen. The French took possession of it again after the death of Charles II. of Spain.

In 1706, it was taken by the duke of Marlborough; and by the French in 1708; but it was retaken the same year. The French also took it by surprise after the battle of Fontenoy; but at the peace of Aix-la-Chapelle it was returned. On the 14th of November, 1792, it was taken possession of by the French under General Labourdonnay, who were welcomed by the inhabitants. In April, 1793, they evacuated it, upon the desertion of Dumouriez; but recovered it again in July 1794, when the Austrians under Clairfait retreated. It remained with the rest of the Netherlands in their hands for twenty years: and hither Louis XVIII., returned during the 100 days. Ghent is well seated for trade, on account of its rivers and canals. It carries on a great commerce in corn; and has linen, woollen, and silk manufactures. Hence it was, indeed, that England first received her woollen manufacture; and she now rivals us in that of cotton. In 1816 the college here received a great extension, being constituted one of the three universities of the kingdom of the Netherlands, the current language is Flemish, but all people of education are capable of speaking French fluently. The citadel, built by Charles V., is one of the largest in Europe, but not proportionally strong. The number of citizens is about 65,000, but its population is not proportionable to its extent: of which Charles V. thus boasted to Francis I.; 'I have a glove,' said he, alluding to its French name Gand, 'in which I could put your whole city of Paris.' Ghent lies twenty-six miles north-west of Brussels; thirty south-west of Antwerp, and thirty-five north of Lisle. Long. 3° 49′ E., lat. 51° 4′ N.

GHERIAH, or Gherlah, a town of Hindostan, in Concan, on the west or pirate coast. It was the capital of the pirate Angria, from whom it was taken by admiral Watson and colonel Clive, in 1756, when his fleet was destroyed, and his fort taken, by the British and Mahrattas. It lies eighty miles N. N. W. of Goa, and 295 south by east of Bombay. Long. 73° 8′ E., lat. 16° 45′ N.

Gheriah, a fortress situated on a promontory, on the south of India, a mile long, and a quarter of a mile broad. It is in the province of Concan. This promontory lies about a mile from the entrance of a capacious harbour, formed by the mouth of a river which descends from the Western Ghauts. In the year 1707 a Mahratta chief, named Conajee Angria, had established an independent sovereignty here, and possessed a numerous fleet. At a subsequent period, the depredations of these pirates drew on them an attack from the British by commodore James, when the whole of the enemy was either captured or destroyed. There was found (1765) in the fort 206 pieces of ordnance, and an immense quantity of ammunition and naval stores, beside £120,000 in specie or valuables. It now belongs to the Peshwa of the Mahrattas.

GHER'KIN, *n. s.* Germ. *gurcke*, a cucumber. A small pickled cucumber.

GHESS. See Guess.

GHILAN, a province of Persia, on the south-west shore of the Caspian Sea, which it borders for upwards of 200 miles. It has no rivers of importance, but the waters of the Kiziluvein, and numerous streams from its mountains, render it fertile in rice, wheat, and provisions. It is in fact, one vast narrow plain enclosed by mountains, through which there are only a few difficult passes. Silk is the staple produce, and Astrachan its chief market; but the town of Retch carries on a considerable trade. Population of the district 50,000.

GHINALA, a town and country of West Africa, on the north of the Rio Grande. The capital is situated about seventy miles up that river.

GHISLAIN (St.), or St. Gillian, a town of the Netherlands, in the ci-devant province of French Hainault, seated on the Haine, five miles west of Mons. It was taken by general La Fayette, in June 1792. Long. 3° 53′ E., lat. 50° 28′ N.

GHIZNE, or Zabul, a level district of Afghaunistaun, between the 33° and 34° of N. lat., and the 68° and 69° E. long. It is but poorly cultivated; the inhabitants, who are of the Ghiljee tribe, preferring a pastoral life, and raising a great number of sheep. The climate is very cold. Its principal towns are Ghizne, Karabay, and Gardaiz.

Ghizne, the capital of the above district, was once the chief town of a powerful empire, extending from the Ganges to the middle of Persia. It was then called Medineh, or The City, and Dar al Islam, the seat of the true faith; was strongly fortified and contained many sumptuous palaces. In the year 1783 it was visited by Mr. Foster, who says, it stands on a hill of a moderate height, at the foot of which runs a small river. 'Its existence is principally supported by some Hindoo families, who carry on a small traffic, and supply the wants of the few Mahommedan residents. At a short distance stands the tomb of sultan Mahmoud, to which pilgrims resort from distant places. The climate of Ghizne is so cold as to have become proverbial; and the Afghauns told me, that the town has been more than once overwhelmed in snow. This city was in the year 960 taken possession of by Abistagy, a rebel governor of Khorassan, who threw off his allegiance to the Samonavian dynasty of Persia, and founded a new kingdom. He was succeeded by his son-in-law Subaetageen, who extended his dominions to the banks of the Indus. Mahmoud, the next in succession, invaded India several times, and accumulated greater wealth than was ever in possession of any other individual. It was he who raised the glory of the Ghiznean empire to its zenith, and first obtained from the caliph the title of sultan.' He died in the year 1030, and was buried in a magnificent tomb seen by our traveller. The kingdom continued to flourish till the year 1116, when it was subdued by a Persian army. In the year 1150 it was again seized by Alaaddeen, the prince of Ghore, who, in revenge for an insult offered to his family by the inhabitants of this city, ordered a massacre of them for seven days, and destroyed all the public buildings but the tombs. The royal family upon this fled to Lahore, where the dynasty only languished through two more weak reigns

GHORAGHAUT, or Idrackpool, is a district of Bengal, containing about 150 square miles. It formerly embraced great part of the district of Dinagepoor, and extended across the Brahmapootra River, including the district of Currybary. The greater portion of the inhabitants are now Mahommedans, and a quiet and tractable people; the zemindary is in the hands of a Hindoo family, promoted to that situation by the Shujaaddeen Khan, about the year 1727. It is included in the collectorship of Momensing.

Ghoraghaut, also called Nusserutabad (the city of victory), the capital of the above district, is pleasantly situated on the west bank of the Curruttya, and formerly carried on a considerable trade with Bootan for Tangan horses, musk, &c.

GHORE, or Ghour, a mountainous district of Afghaunistaun, situated between 35° and 37° of N. lat., and 67° and 69° of E. long. The climate is very cold. In the twelfth century its chiefs became independent, and, having overturned the Ghiznean empire, carried their arms to the south-east as far as Benares; and one of their slaves, named Cuttub, founded about the year 1205 the Mahommedan kingdom of Dehly. This country in the thirteenth and fourteenth centuries was overrun by the armies of Jenghis Khan and Tamerlane, and is now in the possession of the Usbeck Tartars. The tribe, being of pastoral habits, have emigrated to the vicinity of Paishawur, and are now subdivided into three, called the Mehmund, Khulleel, and Daoudyze tribes. Its chief towns were Ghore and Firoy Koh.

Ghore, the capital of this district, once the residence of a long line of sovereigns, was taken from them by the king of Khuarizm, and subsequently sacked by the armies of Jenghis and Tamerlane, since which period it has not recovered.

GIAGH, in chronology, a cycle of twelve years, in use among the Turks and Cathayans. Each year of the giagh bears a name of some animal; the first that of a mouse; the second that of a bullock; the third a lynx or leopard; the fourth a hare; the fifth a crocodile; the sixth a serpent; the seventh a horse; the eighth a sheep; the ninth a monkey; the tenth a hen; the eleventh a dog; and the twelfth a hog. They also divide the day into twelve parts, called giaghs, and distinguish them by the names of animals. Each giagh contains two of our hours, and is divided into eight kehs; so that a keh is a quarter of our hour.

GIAM'BEUX, *n. s.* Fr. *jambes.* Legs, or armour for legs, as greaves.

The mortal steel despiteously entailed,
Deep in their flesh, quite through the iron walls
That a large purple stream adown their *giambeux* falls. *Spenser.*

GIANNONI (Peter), an Italian author, born at Naples, in 1680. He wrote a History of Naples, which is admired for its purity of style, and vigor of sentiments. It gave such offence to the court of Rome that he was obliged to flee to Piedmont; where he died in 1748.

GI'ANT, *n. s.* }
Gi'antess, *n. s.* }
Gi'antlike, *adj.* } Goth. *geant;* Ital. Span and Port. *gigante;* Fr. *geant;* Lat. *gigas:* all probably of Gr. γιγας, earth-born; because the old fables declared that the early giants were literally born of the earth. A man or woman of extraordinary or unnatural size, with reference to height: gigantic; vast; lofty; strong.
Gi'antly, *adv.* }
Gi'antship, *n. s.* }

Sire Kyng, quoth Merlin, though gif thou wolt here caste
In the honour of men, a worke that ever schal ylaste,
To the hul of Kilar send into Yrlonde,
After the noble stones that ther habbet longe ystonde,
That was the tricke of *giandes* for a quoynte work there is
Of stones all with art ymad in the world such non is.
Robert of Gloucester.

His mery men commandeth he
To maken him bothe game and gle;
For nedes must he fighte,
With a *geaunt* with hedes three,
For paramour and jolitee
Of on that shone ful brighte.
Chaucer. The Rime of Sire Thopas.

At last, by subtile sleights, she him betraid
Unto his foe, a *gyaunt* huge and tall.
Spenser. Faerie Queene.

Now does he feel his axle
Hang loose about him, like a *giant's* robe
Upon a dwarfish thief. *Shakspeare. Macbeth.*

Gates of monarchs
Are arched so high, that *giants* may get through,
And keep their impious turbans on, without
Good-morrow to the sun. *Id. Cymbeline.*

Woman's gentle brain
Could not drop forth such *giant* rude invention;
Such Ethiop words. *Id. As You Like It.*

I had rather be a *giantess,* and lie under mount Pelion. *Shakspeare.*

Those *giants,* those mighty men, and men of renown, far exceeded the proportion, nature, and strength of those *giants* remembered by Moses of his own time. *Raleigh's History.*

What though an apish pigmie in attire,
His dwarfish body *gyant-like* array,
Turn brave, and get him stilts to seem the higher,
What would so doing handsome him I pray?
Now, surely such a mimicke sight as that
Would with excessive laughter move your spleene,
Till you had made the little dandiprat,
To lye within some auger-hole unseene.
Geo. Withers.

Fierce faces threatening wars,
Giants of mighty bone, and bold emprise!
Milton.

His *giantship* is gone somewhat crest fallen,
Stalking with less unconscionable strides,
And lower looks. *Id. Agonistes.*

The *giant* brothers, in their camp, have found
I was not forced with ease to quit my ground.
Dryden.

Notwithstanding all their talk of reason and philosophy, which they are deplorably strangers to, and those unanswerable doubts and difficulties, which, over their cups, they pretend to have against Christianity; persuade but the covetous man not to deify his money, the proud man not to adore himself, and I dare undertake that all their *giantlike* objections against the Christian religion shall presently vanish and quit the field. *South.*

By weary steps and slow.
The groping *giant,* with a trunk of pine,
Explored his way. *Addison.*

Neptune, by prayer repentant rarely won,
Afflicts the chief to avenge his *giant* son,
Great Polypheme of more than mortal might.
Pope.

Rocks, torrents, gulphs, and shapes of *giant* size,
And glittering cliffs on cliffs, and fiery ramparts rise.
Beattie.

Oh enviable Briareus! with thy hands
And heads, if thou hadst all things multiplied
In such proportion!—But my Muse withstands
The *giant* thought of being a Titan's bride,
Or travelling in Patagonian lands. *Byron.*

——————into life it came
And grew a *giant* tree: the mind may grow the same.
Id. Childe Harold.

GIANTS. The traditions of all ages have furnished us with so many extravagant accounts of giants of incredible bulk and strength, that the existence of such people is now generally disbelieved. It is commonly thought that the stature of man has been the same in all ages; and some have even pretended to demonstrate the impossibility of the existence of giants mathematically. Of these Mr. M'Laurin has been the most explicit. But his arguments and comparisons, drawn from the disproportion between the cohesion of parts in small models and large works, of human workmanship, are by no means conclusive; because, along with an increase of stature in any animal, we must always suppose a proportional increase in the cohesion of the parts of its body. Large works sometimes fail when constructed on the plan of models, because the cohesion of the materials whereof the model is made, and of the large work, are the same; but a difference in this respect will produce a very remarkable difference in the ultimate result. Thus, suppose a model is made of fir wood, the model may be firm and strong enough; but a large work made also of fir, when executed according to the plan of the model, may be so weak that it will fall to pieces from its own weight. If, however, we make use of iron for the large work instead of fir, the whole will be sufficiently strong, even though made exactly according to the plan of the model. The same may be said with regard to large and small animals. If we could find an animal whose bones exceeded in hardness and strength the bones of other animals as much as iron exceeds fir, such an animal might be of a monstrous size, and yet be exceedingly strong. In like manner, if we suppose the flesh and bones of a giant to be greatly superior, in hardness and strength, to those of other men, the great size of his body will be no objection at all to his strength. The whole controversy, therefore, concerning the existence of giants must rest upon the credibility of the accounts given by those who profess to have seen them, and not on any arguments drawn à priori. In the Scripture we are told of giants who were produced from the marriages of the sons of God with the daughters of men. See ANTEDILUVIANS. This passage indeed has been differently interpreted, and it is very doubtful whether the word translated giants there implies any extraordinary stature. In other parts of Scripture, however, giants, with their dimensions, are mentioned in such a manner that we cannot possibly doubt their existence; as in the case of Og king of Bashan, Goliath and his brethren. 1 Chron. xx. 4—8. The Rev. Mr. Gun, minister of Latheron in Caithness, mentions William Sutherland, the last proprietor of Berrydale Castle, who lived in the end of the fifteenth century, and measured nine feet five inches high.

M. Le Cat, in a memoir read before the Academy of Sciences at Rouen, gives the following account of giants that are said to have existed in different ages. 'Profane historians have given seven feet of height to Hercules their first hero; and in our days we have seen men eight feet high. The giant who was shown in Rouen, in 1735, measured eight feet some inches. The emperor Maximin was of that size; Shenkius and Platerus, physicians of the last century, saw several of that stature; and Goropius saw a girl who was ten feet high. The body of Orestes, according to the Greeks, was eleven feet and a half; the giant Galbara, brought from Arabia to Rome under Claudius Cæsar, was near ten feet; and the bones of Secondilla and Pusio, keepers of the gardens of Sallust, were but six inches shorter. Funnam a Scotchman, who lived in the time of Eugine II. king of Scotland, measured eleven feet and a half; and Jacob le Maire, in his voyage to the straits of Magellan, reports, that on the 17th of December, 1615, they found at Port Desire several graves covered with stones; and, having the curiosity to remove the stones, they discovered human skeletons of ten and eleven feet long. The chevalier Scory, in his voyage to the peak of Teneriffe, says, that they found in one of the sepulchral caverns of that mountain, the head of a Guanche which had eighty teeth, and that the body was not less than fifteen feet long. The giant Ferragus, slain by Orlando nephew of Charlemagne, was eighteen feet high. Rioland, a celebrated anatomist, who wrote in 1614, says, that some years before there was to be seen in the suburbs of St. Germain the tomb of the giant Isoret, who was twenty feet high. In Rouen, in 1509, in digging in the ditches near the Dominicans, they found a stone tomb containing a skeleton whose skull held a bushel of corn, and whose shin bone reached up to the girdle of the tallest man there, being about four feet long, and consequently the body must have been seventeen or eighteen feet high. Upon the tomb was a plate of copper, whereon was engraved, 'In this tomb lies the noble and puissant lord, the chevalier Ricon de Vallemont, and his bones.' Platerus, a famous physician, declares, that he saw at Lucerne, the true human bones of a subject which must have been at least nineteen feet high. Valence in Dauphiné boasts of possessing the bones of the giant Bucart, tyrant of the Vivarais, who was slain by an arrow by the count De Cabillon his vassal. The Dominicans had a part of the shin bone, with the articulation of the knee, and his figure painted in fresco, with an inscription, showing that this giant was twenty-two feet and a half high, and that his bones were found in 1705, near the banks of the Morderi, a little river at the foot of the mountain of Crussol, upon which (tradition says) the giant dwelt.' M. Le Cat adds, that skeletons have been discovered of giants, of a still more incredible height, viz. that of Theuto-

bochus king of the Teutones, found January 11th, 1613, twenty-five feet and a half high; of a giant near Mazarino, in Sicily in 1516, thirty feet; of another in 1548, near Palermo, thirty feet, &c. &c. But whether these accounts are credited or not, we are certain that the stature of the human body is by no means fixed. We are ourselves a kind of giants in comparison of the Laplanders; nor are these the most diminutive people to be found upon the earth. The abbé la Chappe, in his journey into Siberia to observe the transit of Venus, passed through a village inhabited by people called Wotiacks, who were not above four feet high.

GIANTS, REBELLIOUS, in ancient mythology, the sons of Cœlus and Terra. According to Hesiod they sprang from the blood of the wound which Cœlus received from his son Saturn. Hyginus calls them sons of Tartarus and Terra. They are represented as endued with strength proportioned to their gigantic size. Some of them, as Cottus, Briareus, and Gyges, had each fifty heads and 100 arms, and serpents instead of legs! They were of a terrible aspect, and their hair hung loose about their shoulders. Pallene and its neighbourhood was the place of their residence. The defeat of the Titans, to whom they were nearly related, incensed them against Jupiter, and they all conspired to dethrone him. Accordingly they reared Mount Ossa upon Pelion, and Olympus upon Ossa; and from thence attacked the gods with huge rocks, some of which fell into the sea and became islands, and others fell on the earth and formed mountains. Jupiter summoned a council of the gods; when being informed that it was necessary to obtain the assistance of some mortal, he by the advice of Pallas called up his son Hercules; and with the aid of this hero he exterminated the giants Enceladus, Polybates, Alcyon, Porphyrion, the two sons of Alœus, Ephialtes and Othus, Eurytus, Clytius, Tythyus, Pallas, Hippolitus, Agrius, Thoon, and Typhon, the last of whom it was more difficult to vanquish than all the rest. Jupiter, having thus gained a complete victory, cast the rebels down to Tartarus, where they were to receive the full punishment of their crimes; or, according to some of the poets, he buried them alive under Mount Ætna and different islands.

The GIANT'S CAUSEWAY is a natural pier or promontory, projecting 600 feet into the sea, on the north coast of the county of Antrim, Ireland. It is sometimes described as the south part of the promontory of Bengou, which is eight miles west of Farehead. In describing this noble natural curiosity of Ireland, we shall avail ourselves of the published accounts of a gentleman (Rev. G. N. Wright) whose descriptive sketches of his native country have elsewhere enlivened our pages. He conducts us from Belfast by Glenarm and Bally-castle to Ballintoy and Bushmills, about one mile from the Causeway, where there is an inn called the Causeway Inn, being the nearest place of rest and refreshment.

'Approaching the shore at 'the Rock Heads' it becomes necessary to abandon all kinds of vehicles as well as our horses, and trust to pedestrian activity for the remainder of the path to the Causeway.

'A first object of curiosity in this direction is Port Coon Cave; this magnificent excavation is accessible both by sea and land. In the west side are two apertures by which it can be entered at all times, but the violence of the billows at its mouth sometimes forbids the most adventurous sailor to approach. The cave is of considerable length, and boats may row in 100 yards at least. The formation of the interior is very extraordinary, and extremely interesting to the mineralogical tourist: the roof and sides are composed of rounded stones, imbedded in a basaltic paste, of extreme hardness. These stones again are formed of concentric spheres, resembling the pellicles of an onion. The appearance of the cave, viewed from the innermost recess, is not unlike the side aisle of a gothic cathedral, the roof being a tolerably regular pointed arch: the sides appear greasy, and do actually feel so: one of the unbidden attendants, who takes the trouble to accompany the party, is generally provided with a loaded piece, upon the discharge of which, a tremendous reverberation of sound is produced: musical instruments also, when played with judicious management, i. e. by allowing a short pause between the succeeding notes, will be found to produce most agreeable echoes. Adjoining this cave is the little inlet called Port Coon, formed by a very remarkable whyndyke; which seems to have been composed of seven walls, and to have been separated from the dyke in front of the precipice, by some great convulsion. In this shock a small pyramidal basaltic rock was detached from the great mass, and stands now insulated in the centre of the small bay. The ruins of the whyndyke are attached to its eastern side, separated into a number of distinct walls, exhibiting their construction by horizontal prisms, and forming, altogether, a very curious object. Beyond the projecting excavated rock, of which Port Coon Cave is composed, is a second of these whyndykes, being one side of the little estuary of Port Nabau

'On the west of Port Coon Cave and Dyke, in the dark perpendicular cliff, is a deep and lofty cave, accessible by water alone. The entrance assumes the appearance of a pointed arch, and is remarkably regular. The boatmen are very expert in entering these caves; they bring the boat's head right in front, and, watching the roll of the wave, quickly ship the oars, and sail in majestically upon the smooth rolling wave. The depth of Dunkerry Cave has not been ascertained, for the extremity is so constructed as to render the management of a boat there impracticable and dangerous; besides, from the greasy character of the sides of the cave, the hand cannot be serviceable in forwarding or retarding the boat. Along the sides is a bordering of marine plants, above the surface of the water, of considerable breadth. The roof and sides are clad over with green confervæ, which gives a very rich and beautiful effect: and not the least curious circumstance connected with a visit to this subterranean apartment, is the swelling of the water within. It has been already frequently observed, that the swell of the sea upon this coast is at all times heavy; and, as

each successive wave rolls into the cave, the surface rises so slowly and awfully, that a nervous person would be apprehensive of a ceaseless increase in the elevation of the waters until they reached the summit of the cave. Of this, however, there is not the most distant cause of apprehension, the roof being sixty feet above the high water mark. The roaring of the waves in the interior is distinctly heard; but no probable conclusion can be arrived at from this as to the depth. It is said too, that the inhabitants of some cottages a mile removed from the shore, have their slumbers frequently interrupted in the winter's nights, by the subterranean sounds of Dunkerry Cavern. The entrance is very striking and grand, being twenty-six feet in breadth, and enclosed between two natural walls of dark basalt and the visitor will enjoy a much more perfect view of the natural architecture at the entrance, by sitting in the prow with his face to the stern as the boat returns.

'Landing again, and returning to the Causeway road, pursue its windings beneath the wild and barren cliff for about a quarter of a mile, when the first view of the Causeway is afforded. The impression at first produced is that of the building of an extensive pier, for which the stones, blocked out, had many years ago been laid upon the beech; but from some great national calamity, or other unknown cause, the work was interrupted, and the laborers all dismissed. And so the natives believe, that the giants once commenced this colossal task of forming a causeway into Scotland, but that, being expelled by the ancient Irish heroes, they left the great work imperfect. It is not, however, the magnitude of the Causeway which surprises, nor the distant view which commands attention; the wonder and admiration of the tourist are to be reserved until he steps upon the very surface of this great work of nature, when the expectation of the most sanguine and the amazement of the most experienced traveller will indeed be fully realized. To the left are seen some bold projecting rocks, called the Stookins, forming a partition between Port-na-Baw and Port-na-Gange; and a little farther west, close to the shore, stands the insulated rock called Sea-Gull Isle; and between Port-na-Gange and Port-Noffer the Causeway runs out into the sea.

'The Causeway consists of three piers or moles, projecting from the base of a stratified cliff, about 400 feet in height: the principal mole is visible for about 300 yards in extent at low water, the others not more than half that distance. It is composed of polygonal pillars, of dark colored basalt, so closely united, that it is difficult to insert more than a knife-blade between them; and the formation of a continuous surface at each point in the pavement, by polygons whose angles vary so much in value, would have surprised even Proclus, yet no artificial formation can exceed this in accuracy. Towards the centre of the whole mass the pillars ascend; and, from the peculiar appearance of the surface, this vertex is usually called the Honeycomb. The pillars are irregular prisms of an uncertain number of sides, varying from three to nine: there is one of three sides near the centre of the Honeycomb, and several of nine have been detected, but the hexagonal form prevails most generally.

'Each pillar is in itself a distinct piece of workmanship; it is separable from all the adjacent columns, and then is itself separable into distinct joints, whose articulation is as perfect as human exertion could have formed them, the extremities of each joint being concave or convex, which is determined by the terminations of the joint with which it was united; but there is no regularity as to the upper or lower extremity being concave, or convex; the only law on this point is, that the contiguous joints are the one concave, the other convex. In order to ensure stability to this piece of architecture, the angles of the inferior joints frequently overlap those of the superior so finely, that the force required to dislocate them frequently fractures the joints. If the concavity of any pillar be examined, it will be found to represent a circle inscribed in a polygon; the interval in each angle intercepted between the periphery of the circle, and the sides of the polygon being perfectly horizontal. To make this more intelligible—suppose the extremity of the pillar or joint had been originally in a soft state, but in a polygonal form, and that a heavy iron ball, whose diameter was equal to the shortest diameter of the polygon, was laid upon it, and, being removed again, left a basin-formed impression on the stone; this would give a perfect idea of the appearance which the concave ends exhibit: the convex, on the other hand, appears as if the ball was enclosed within the pillar still, and a portion of the sphere projected through the extremity of the column. This very mathematical appearance of the circle inscribed in an irregular polygon, has led some fanciful theorists to suppose, that these curious columns might have been formed by the compression of a number of liquid globules, which at first only touched at one point, but, when the pressure was increased indefinitely, were formed into angular masses.

'Though the polygons are all irregular, yet the contiguous sides of the adjacent pillars are equal, so that the contact of the columns is complete. And we have already mentioned, that, notwithstanding the number and different values of the concurring angles in each point, yet their sum is found to be so precisely equal to four right angles, that there is not the smallest aperture or open space left over the whole arena of basaltic pavement. So close is the flooring of this natural quay, that, whenever any subsidence of the surface has occurred, water will be found to lodge, and remain for a length of time. And this suggests also a curious circumstance, to which the attention of the visitor will be called, upon his arrival at the Causeway; that, although the union of the columns has been just represented as impervious to a lodgment of water, yet on the west side of the Causeway is seen a spring of water bubbling up between in the interstices of the columns through which the blade of a knife could, with much difficulty, be introduced. This is called, of course, the Giants Well, and the water found in it is extremely

pure. It may be observed also, that the pillars, between which the water issues, are not in the least worn, nor are their angles less accurate than those of any pillar in the Causeway. In the early ages of natural history, many ridiculous questions were proposed relative to this extraordinary piece of nature's architecture, which would degrade the naturalist of the present age; amongst the rest, it was seriously proposed, as a difficult and important question, to discover the depth which the Causeway pillars run perpendicularly into the ground, and in the Encyclopædia Britannica we find this solemn sentence: 'How deep they are fixed in the strand was never yet discovered.' But the modern geologist can assure these sage enquirers, that the mole or quay, called the Giants' Causeway, is only the continuation of a basaltic stratum, whose breadth may be measured in various parts of the range along the coast, and is ascertained to be forty-five feet in thickness or depth. The answer to the query, to what distance does it extend under water, is not so satisfactory in a nautical point of view; but it is supposed to obey the same law here as the stratum to which it belongs is found to do elsewhere.

'The Causeway, which is entirely composed of basaltic pillars, is inclined to the horizon in a small angle, and may be traced up the cliff in an easterly direction, and culminates at the distance of one mile from the Causeway, where it attains the height of 250 feet above the level of the sea. It still proceeds towards the east, and ultimately immerges at Portmore. This is not the grandest nor most magnificent stratum of basalt: the next stratum but one to this forms the noblest natural colonnade in the world, the columns being more perfect in their articulation than the great columns of Fair Head, and of more collossal dimensions than those of the Causeway.

'An expert guide will afford much satisfaction to the tourist in pointing out the variety of form and position in the different columns around the Causeway; some are remarkable for the great length of their joints, others are seen in the lowest range of the precipice, lying in an horizontal position; but this is evidently attributable to external causes, as all the columns in these have a vertical position. In the face of the bold stratified cliff, east of the Causeway, some very perfect and regular colonnades of clustered pillars are seen, the most perfect of which are called the organs, from a very striking resemblance which the façade bears to the range of frontal tubes in a large church organ. And opposite these is another, called generally the Giants' Loom, but the term giant has lost its distinguishing power in this vicinity now, as every stone around derives an epithet or name from its relative situation amongst these great men's supellectilia, their chairs, their well, &c.

'The scenery east of the Causeway is truly sublime: the dark precipitous cliffs which rise regularly in gradually retiring strata, certainly suggest the idea of their having been deposited age after age, as Werner thought; and the extraordinary appearance of the various colonnades might, for a moment, seduce the fancy of the contemplating visitor, and lead him to imagine, that here whole palaces have been overwhelmed in ruin. These successive capes, which are visible from the Causeway, are but a part of one great headland, called Bengore, the rival of Benmore or Fair Head, and similarly formed. On a lofty projecting cliff, east of the Causeway, stand a few shattered columns, usually known by the appellation of 'the chimney tops,' and said to have been mistaken by the crew of the vessels composing the invincible Armada of Spain, and fired upon as such.' Wright's Guide to the Giants' Causeway, 12mo. London, 1823.

GIBBE, *n. s.* Heb. גבל, to end. Any old worn out animal.

For who, that's but a queen, fair, sober, wise,
Would from a paddock, from a bat, a *gibbe*,
Such dear concernings hide? *Shakspeare. Hamlet.*

GIB'BER, *v. n.* } To speak indistinctly,
GIB'BERISH, *n. s.* } or utter words without meaning; applied to the private language or cant terms of rogues and gipsies. According to Skinner from Fr. *gaber*, to cheat; see GIBE. By others conjectured to be formed by corruption from jabber. But, as it was anciently written giberish, Dr. Johnson thinks it probably derived from the chemical cant, and originally implied the jargon of 'Geber' and his tribe.

Some, if they happen to hear an old word, albeit very natural and significant, cry out straightway, that we speak no English, but *gibberish*. *Spenser.*

The sheeted dead,
Did squeak and *gibber* in the Roman streets.
Shakspeare.

Some of both sexes writing down a number of letters, just as it came into their heads; upon reading this *gibberish*, that which the men had wrote sounded like High Dutch, and the other by the women like Italian. *Swift.*

GIB'BET, *n. s.* & *v. n.* Fr. *gibet*; barb. Lat. *gabalus*, from Heb. גבול, an end or boundary.—Minsheu. That on which malefactors are hanged or exposed; any transverse beam.

He shall come off and on swifter than he that *gibbets* on the brewer's bucket. *Shakspeare.*

When was there ever cursed atheist brought
Unto the *gibbet*, but he did adore
That blessed power which he had set at nought?
Davies.

You scandal to the stock of verse, a race
Able to bring the *gibbet* in disgrace. *Cleaveland.*
I'll *gibbet* up his name. *Oldham.*

Haman suffered death himself upon the very *gibbet* that he had provided for another. *L'Estrange.*

Papers lay such principles to the Tories, as if they were true, our next business should be to erect *gibbets* in every parish, and hang them out of the way. *Swift.*

One to destroy is murder by the law,
And *gibbets* keep the lifted hand in awe,
To murder thousands takes a specious name
War's glorious art, and gives immortal fame.
Young.

GIB'BIER, *n. s.* Fr. Game; wild fowl.

These imposts are laid on all butchers' meat, while, at the same time, the fowl and *gibbier* are tax-free. *Addison on Italy.*

GIBBON (Edward), Esq., a celebrated English historian, born at Putney in Surrey, April 27th, 1737. He was the eldest son of Edward

Gibbon, Esq., and Judith, daughter of — Porten, Esq. merchant, of London. His family was descended from John Gibbon, architect to Edward III., who possessed lands in Kent. His constitution till his fifteenth year was extremely feeble, as were those of his brethren and sisters, who all died in infancy: and he complains that 'the chain of his education was broken, as often as he was called from the school of learning to the bed of sickness.' To the care and attention of his maternal aunt he ascribes his preservation from a premature death. In 1745 he was sent to the grammar-school at Kingston; in January, 1749, to that of Westminster; and in April, 1752, to Oxford, where he matriculated in Magdalen College; the professors of which he blames greatly for their remissness and inattention to his moral conduct and principles. In consequence of this he became a convert to the Roman Catholic faith in his sixteenth year. To cure the young Catholic of his errors, and bring him back to the Protestant faith, his father, within three weeks after his conversion (June 30th, 1753) sent him to Switzerland, and entrusted him to the tutorage of Mr. Pavilliard, a Calvinist minister at Lausanne, whom Mr. Gibbon mentions with gratitude, as a most excellent preceptor. Under his tuition he made rapid progress in the Latin, Greek, and French classics; in history, geography, logic, and metaphysics; and was also soon reclaimed from the errors of popery; so that on Christmas, 1754, he received the sacrament in the church of Lausanne. Thus had he communicated with three different churches before he was eighteen years old. These jarring opinions, however, successively adopted and rejected, and the repeated changes so rapidly made from the one to the other, perhaps contributed to weaken our author's faith in revelation, and to lead to his final change to deism, as much as his perusal of M. Voltaire's writings, or his conversation with that author, to whom he introduced himself in 1757. About this time Mr. Gibbon fell in love with Mad. Susan Curchod, daughter of the minister of Crassay, a lady whom he describes as possessed of every accomplishment, corporeal and mental, that can adorn a woman. But, though the consent of the young lady and her parents was easily obtained, yet his father's tyrannical veto, to which, 'after a painful struggle,' he submitted, deprived him of this inestimable treasure, and of matrimonial felicity for life. The lady was afterwards married to the celebrated M. Neckar. In spring, 1758, he was recalled to England, and well received by his father; at whose house at Beriton, in Hampshire, he finished a work he had begun at Lausanne, entitled Essai sur l'étude de la Literature, which he published in 1761, 12mo., with a dedication to his father. Previous to this period, he had been appointed a captain in the South Hampshire militia, in which he served two years, and which contributed to make him better acquainted with English manners, principles, and parties. At the peace in 1763 he went abroad; and after visiting Paris, where he was introduced to Messrs. D'Alembert and Diderot, returned to his favorite residence at Lausanne. Having spent some time there, he made the tour of Italy; and at Rome on the 15th of October, 1764, while musing amidst the ruins of the capitol, the idea of his great work first started into his mind. Upon his return to Hampshire in June, 1765, he found his father involved in pecuniary difficulties, and, to relieve him, consented to the sale of part of the estate. After commencing a history of the revolutions of Switzerland, which he suppressed, he engaged in a journal entitled Memoires Literaires de la Grand Bretagne, and published 2 vols. for 1767 and 1768; but his partner in this undertaking, a native of Switzerland, going abroad, when the third volume was nearly finished, the work was discontinued. Bishop Warburton having about this time published an Interpretation of the Sixth Book of Virgil's Æneid, he criticised it with equal asperity and success. Of his History of the Decline and Fall of the Roman Empire, the 1st vol. was published in 1776, and met with extraordinary success; the 2d and 3d vols. appeared in 1781; and the 4th, 5th, and 6th, in 1787, established Mr. Gibbon's fame as an historian. Encomiums were lavished on him from all quarters by Mr. Hume, Dr. Robertson, Dr. Watson, Zimmerman, &c. The last represents Mr. Gibbon as even excelling both those eminent historians in point of style. 'All the dignity,' he adds, 'all the charms of historic style are united in Gibbon; his periods are melody itself, and all his thoughts have nerve and vigor.' But others, while they give our author full credit for acuteness of penetration, fertility of genius, luxuriance of fancy, elegance of style, harmony of language, and beauty of epithets, &c., object that 'the uniform stateliness of his diction sometimes imparts to his narrative a degree of obscurity, unless he descends to the miserable expedient of a note to explain the minuter circumstances,' and that 'his style on the whole is much too artificial; which gives a degree of monotony to his periods, that extends almost to the turn of his thoughts.' But a more serious objection, it has been added, is his attack upon Christianity; the loose and disrespectful manner in which he mentions many points of morality, regarded as important on the principles of natural religion; and the indecent allusions and expressions which too often occur in the work. An argumentative attack upon Christianity will never, merely as such, be condemned or shunned by the Christian; on the other hand, the attack is never to be carried on in an insidious manner, and with improper weapons: indeed Christianity itself, so far from dreading, will invite every mode of fair and candid discussion. But our historian often makes, when he cannot readily find, an opportunity to insult the Christian religion. Such indeed is his eagerness in the cause, that he stoops to the most despicable pun, or to the most awkward perversion of language, for the pleasure of turning the Scripture into ribaldry, or calling Jesus an impostor. Yet of the Christian religion has Mr. Gibbon himself observed, that 'it contains a pure, benevolent, and universal system of ethics, adapted to every duty and every condition of life.' Various answers to Mr. Gibbon's attack on Christianity were published by Dr. Chelsam, Dr. Randolph, lord Hailes, Dr. Watson, bishop

of Llandaff, Dr. White, Mr. Apthorpe, Mr. Davis, Mr. Taylor, Dr. Priestley, and others. To most of these our author made no reply, though his posthumous memoirs show that he felt the weight of some of them. Our author, however, was no friend to new opinions in politics. Being introduced into the house of commons as M. P. for Liskeard in 1774, he uniformly supported administration with his vote, during the American war; and upon the French revolution he adopted Mr. Burke's creed, in every thing but his reverence for church establishments. Soon after the downfal of lord North's administration, he returned to Lausanne; but his Swiss friend dying, and French politics prevailing in Berne, he left his Paradise, as he styled it, and returned to London in June, 1793. He did not however enjoy this retreat long. His constitution had suffered much from repeated attacks of the gout, and a swelling of his ancles; and, after having been often tapped for a hydrocele, he died at London, of the gout in his stomach, on the 16th of January, 1794, in the fifty-seventh year of his age.

GIBBONS (Grinling), a celebrated modern carver and statuary, was born in London of Dutch parents about the middle of the last century. He was patronised both by Charles II., and James II.; and gave to wood and coin, to marble and to bronze, the lightness of flowers. His principal remaining works are, the wooden throne at Canterbury, the monument of viscount Camden, at Exton in Rutlandshire, the font in St. James's Church, the statue of Charles II. at Charing Cross, and that of James II. in the Privy Garden. He died in 1721.

GIBBONS (Thomas), D. D., a dissenting minister of some popularity, was born in 1720 at Swaffham, Norfolk. He became in 1742 pastor of an Independent meeting-house in Silver-street, London; but the next year removed to Haberdasher's Hall. In 1754 he was one of the tutors of the Mile End Academy, and in 1764 received a diploma from the university of Aberdeen. He died in 1785; having published,—1. Juvenilia; or Poems on Several Occasions. 2. Family Sermons, 8vo. 3. A System of Rhetoric, 8vo. 4. Female Worthies; or the Lives of Pious Women, 2 vols., 8vo. 5. Memoirs of Dr. Isaac Watts, 8vo. After his death, three volumes of his sermons were published.

GIBBOSITY, *n.s.* } Fr. *gibbosité;* Latin
GIB'BOUS, *adj.* } *gibbus.* An astronomical
GIB'BOUSNESS, *n. s.* } term implying convexity; inequality. Crookbacked; deformed; a prominence.

I demand how the camels of Bactria came to have two bunches on their back, whereas the camels of Arabia have but one? How oxen in some countries began and continue *gibbous* or hunch-backed?
Browne.

A pointed flinty rock, all bare and black,
Grew *gibbous* from behind the mountain's back.
Dryden.

When ships, sailing contrary ways, lose the sight one of another, what should take away the sight of ships from each other, but the *gibbosity* of the interjacent water? *Ray.*

The bones will rise, and make a *gibbous* member.
Wiseman.

The sea, by this access and recess, shuffling the empty shells, wears them away, reducing those that are concave and *gibbous* to a flat.
Woodward's Natural History.

To make the convexity of the earth discernible, suppose a man lifted in the air, that he may have a spacious horizon; but then, because of the distance, the convexity and *gibbousness* would vanish away, and he would only see a great circular flat.
Bentley's Sermons.

GIBBOSITY, in surgery, denotes any protuberance, or convexity of the body, as in a person hump-backed. Infants are much more subject to gibbosity than adults, and it oftener proceeds from external than internal causes. A fall, blow, or the like, frequently thus distorts the tender bones of infants. When it proceeds from an internal cause, it is generally from a relaxation of the ligaments that sustain the spine, or a caries of its vertebræ; though the spine may be inflected forward, and the vertebræ thrown out, by a too strong and repeated action of the abdominal muscles. This, if not timely redressed, grows up and fixes as the bones harden, till in adults it is totally irretrievable: but when the disorder is recent, and the person young, there are hopes of a cure.

GIBBOUS, in astronomy, is used in respect to the enlightening parts of the moon, whilst she is moving from the first quarter to the full, and from the full to the last quarter: for all that time the dark part appears horned or falcated; and the light one hunched out, convex, or gibbous.

GIBBS (James), A. M., a celebrated Scottish architect, born at Aberdeen in 1674. His father was a merchant of that city, and, parties running high about 1688, he named his two dogs Whig and Tory, in ridicule of both parties;—an offence for which the magistrates of Aberdeen summoned him before them, and condemned the two dogs to be hanged at the cross! Young Gibbs was educated at the Marischal College, where he took his degree of A. M. About 1694 he travelled into Holland, where he spent some years with an eminent architect; and where, in 1700, he was introduced to the earl of Mar, who generously assisted him with money and recommendatory letters, to enable him to complete himself under the best Italian masters. About 1710 he left Italy, and returned to England, where he found his noble patron in favor with the queen. An act being passed for building fifty new churches, Mr. Gibbs was employed, and gave a specimen of his abilities by planning and executing St. Martin's Church, St. Mary's in the Strand, and several others. Among many other beautiful edifices planned by him, and built by his direction, we shall only mention the Radcliffe Library at Oxford; the King's College, Royal Library, and Senate House at Cambridge; and the duke of Newcastle's monument. He died 5th of August, 1754, leaving a fortune of £15,000.

GIBBS (Vicary), an English lawyer and judge of modern celebrity, was born in 1752 at Exeter, in which city his father was a surgeon. He was educated at Eton and King's College Cambridge on the royal foundation. In 1772 he obtained

a Craven scholarship. After this, entering himself of Lincoln's Inn, he contracted an acquaintance with Mr Dunning, afterwards lord Ashburton, whose patronage became important to him. He succeeded Mr. Burke in the recordership of the city of Bristol, and was an able and eloquent pleader at the bar. His exertions on the trials of Tooke, Hardy, Thelwall, &c, in particular, ranked him high in his profession; and he proceeded rapidly through the situations of chief justice of Chester, solicitor, and attorney-general (on accepting which last office he was knighted), till, being raised to the bench, he was, in 1814, finally elevated to the dignity of lord chief justice of the common pleas. Sir Vicary only filled this last post about four years, when his infirmities compelled him to resign. He survived about two years, and died in the month of February, 1820.

GIB'CAT, *n. s.* Gib and cat. An old worn-out cat.

I am as melancholy as a *gibcat*, or a lugged bear. *Shakspeare.*

GIBE, *v. n.*, *v. a.*, & *n. s.* } Old French *gaber*; Goth. *gaber*, *gabba*, to mock; Belg. *gabbirn*; Ital. *gabbare*. To reproach; ridicule; taunt; upbraid; or sneer.
GI'BER, *n. s.* }
GI'BINGLY, *adv.* }

When he saw her toy, and *gibe*, and geer,
And pass the bounds of modest merry make,
Her dalliance he despised. *Spenser.*

They seem to imagine that we have erected of late a frame of some new religion, the furniture whereof we should not have borrowed from our enemies, lest they should afterwards laugh and *gibe* at our party. *Hooker.*

Mark the fleers, the *gibes*, and notable scorns
That dwell in every region of his face. *Shakspeare.*

You are well understood to be a more perfect *giber* of the table, than a necessary bencher of the capitol. *Id. Coriolanus.*

Why, that's the way to choke a *gibing* spirit,
Whose influence is begot of that loose grace
Which shallow laughing hearers give to fools. *Shakspeare.*

His present portance
Gibingly and ungravely he did fashion
After the inveterate hate he bears to you. *Id.*

He is a *giber*, and our present business
Is of more serious consequence. *Ben Jonson.*

The good man was by nature gay
Could *gibe* and joke as well as pray. *Somerville.*

The rich have still a *gibe* in store,
And will be monstrous witty on the poor. *Dryden.*

If they would hate from the bottom of their hearts, their aversion would be too strong for little *gibes* every moment. *Spectator.*

Draw the beasts as I describe them,
From their features while I *gibe* them. *Swift.*

Thus with talents well endued,
To be scurrilous and rude,
When you pertly raise your snout,
Fleer and *gibe*, and laugh and flout. *Id.*

Hypocrisy with frown severe
Scurrility with *gibing* air, *Id.*

Till the tried jade, the wheel forgets to hurl,
Provoking envious *gibe* from each pedestrian churl. *Byron.*

GIBEAH, a city of Benjamin, lying north of Jerusalem about twenty or thirty furlongs, and built upon a hill as its name imports. This city gave birth to Saul, the first king of Israel, for which reason it is often called Gibeah of Saul.

GIBEON, a city seated on an eminence about forty furlongs north of Jerusalem, and not far from Gibeah. It was the capital of the Gibeonites.

GIBEONITES, an ancient nation of Canaan, who, hearing of Joshua's great conquests, saved their lives at the expense of their liberty, by a representation that they belonged to a very remote country, and desired to make an alliance with the Hebrews. See Joshua ix. 3—27. The Gibeonites were descended from the Hivites, and possessed four cities; viz. Chephirah, Beeroth, Kirjathjearim, and Gibeon; which were afterwards given to the Benjamites, except the last, which fell to the tribe of Judah. The Gibeonites continued subject to those burdens which Joshua had imposed on them, and were very faithful to the Israelites till the dispersion of that nation.

GIB'LETS, *n. s.* Minsheu says, from *gobbet*, a good mouthful; Mr. Thomson refers us to the Saxon giblai; M. Goth. *gibla*, a wing; according to Junius, more properly from Fr. *gibier*, game. The parts of a goose which are cut off before it is roasted.

'Tis holyday; provide me better cheer:
'Tis holyday; and shall be round the year:
Shall I my household gods and genius cheat,
To make him rich who grudges me my meat?
That he may loll at ease; and pampered high,
When I am laid, may feed on *giblet* pie?
Dryden.

GIBRALTAR, a promontory, and important fortress, in the south of Spain, at the entrance from the Atlantic into the Mediterranean. It is in fact a great rocky mountain, about three miles in length from north to south, from half to three-fourths of a mile in width, and from 1200 to 1400 feet in height. On the north side is an isthmus, about a mile and a half in length, and half as much in breadth, which connects this vast mass of rock with the continent. Its northern front is almost perpendicular; and the east side is full of precipices, while the south, being narrow and abrupt, presents hardly any possibility of approach even to an enemy in command of the sea. On none of these sides has this fortress ever been attacked; there remains only the western front, which is almost as abrupt as the others, but which may be approached in shipping from the bay, and on a level part of which the town is built.

The rock is in general calcareous; and, on blowing it up, fossil bones and teeth have been found, which at first were supposed to be human, but are now known to belong to quadrupeds The rock has also several caverns, of which that of St. Michael on the west, is the largest; it is 1110 feet above the level of the sea. The rain water continually filtrates through, and forms stalactites, some of which extend from the roof to the bottom, forming columns two feet in diameter, and which continually increase in bulk. Excavations have been formed in the rock by blasting, capable of holding the entire garrison of 6000 men; and these subterranean barracks

communicate with all the batteries by passages of the same kind, all of which may be traversed on horseback. Eight bomb-proof cisterns, each containing 40,000 tons, are kept constantly full of water, by collecting all the little runs on the west side of the rock, and the water is allowed to deposit its sediment in immense troughs before it is let into the cisterns.

The bay of Gibraltar is nine miles long, and five broad, and forms a convenient and well-protected naval station. One side is formed by the promontory and isthmus; to the south is the sea; the other sides of the bay (the west and north) are formed by the main land of Spain, but the command of the whole depends on the possession of the promontory.

The town of Gibraltar consists of a principal street, from half to three-quarters of a mile long, and containing 12,000 inhabitants, English, Spaniards, and Jews; each religion being fully tolerated. It is surrounded by a strong wall, supported by bastions and other works, and was formerly under strict military regulations, no inhabitant being allowed to be out of his home after eleven o'clock, without express permission from the governor; and neither hawkers nor beggars were permitted in it. The abuses and vexations consequent to this species of government, induced the parliament to erect it into a body corporate, and the civil power is now lodged in its magistrates. Its chief protection is derived from the batteries on the neighbouring heights, which sweep both the isthmus and the approach to the town by water. In the last siege the town was almost entirely destroyed, but it was afterwards rebuilt on an improved and enlarged plan. The houses have flat roofs, and bow windows are used generally for shops; they are painted black, to blunt the dazzling rays of the sun, with a white stripe to mark each story or floor. Out of the main streets the inhabitants are much crowded, as was exemplified in the rapid spreading of a contagious fever, communicated from Cadiz in 1804, which swept off many thousand inhabitants; the military escaped only from the observance of the strictest precautions, and from their being lodged on higher ground. The climate of Gibraltar is qualified by the vicinity of the sea, and less hot than might be expected in the latitude of 36°.

Cottons, and other manufactures, are its imports from England; sugar, rum, and other produce, from the West Indies; tobacco, rice, and flour, from North America; while wine, fruits, silk, wax, and other Mediterranean articles, are brought in from the east. The port is formed by moles of considerable extent. The chief public buildings are the navy hospital, the victualling office, barracks, and governor's house. The places of worship an English church, Catholic chapel, and three synagogues; here is also a small but elegant playhouse; and a respectable garrison library.

This important fortress seems to have been first particularly noticed as a place of consequence in the year 712. At that time the general of the caliph Al Walid landed with an army of 12,000 men on the isthmus between the general of the the continent; and, that he might secure an intercourse with Africa, ordered a castle to be built on the face of the hill. Part of the building still remains: and, from an inscription discovered above the principal gate, appears to have been finished in 725. It continued in the possession of the Saracens till 1310, when it was taken by Perez de Guzman, under Ferdinand IV. king of Castile. In 1333, however, it was surrendered to the son of the emperor of Fez, who came to the assistance of the Moorish king of Granada. An attempt was made upon it in 1349 by Alphonso XI., king of Castile; but, when the fortress had been reduced to the last extremity, a pestilential fever broke out in the Spanish camp, which carried off the king himself, with great part of his army; after which the enterprise was abandoned. The fortress continued in the possession of the Saracens of Fez until 1410, when it was taken by Joseph III. king of Granada. A design of attacking it was formed by Henry de Guzman in 1435; but, the enterprise miscarried through his imprudence, and he was defeated and slain. However it was at length taken, after a gallant defence, by his son John de Guzman in 1462; since which time it has remained in the hands of Europeans.

In 1540 Gibraltar was surprised and pillaged by Piali Hamet, one of Barbarossa's corsairs; but the pirates, having fallen in with some Sicilian galleys, were by them defeated, and all either killed or taken. In the reign of Charles V. the fortifications of Gibraltar were modernised, and such additions made as to render them almost impregnable. But in 1704, in consequence of the resolution adopted by the court of Britain to assist the archduke Charles in his pretensions to the Spanish crown, Sir George Rooke was sent with a powerful fleet into the Mediterranean, and an attempt on Gibraltar was resolved upon. On the 21st of July, 1800 troops were landed upon the isthmus under the prince of Hesse Darmstadt; and, on the refusal of the governor to surrender, a cannonade was begun from the fleet on the 23d, and kept up so briskly that in five or six hours the Spaniards were driven from many of their guns, especially at the new mole-head. The admiral, perceiving that by gaining this part of the fortification the reduction of the rest would be facilitated, ordered out some armed boats to take possession of it. On their approach the Spaniards sprung a mine, which demolished part of the works, killed two lieutenants and forty men, wounding about sixty more. Notwithstanding this disaster the assailants kept possession of the work, and took a small bastion half way between the mole and the town. On this the governor capitulated, and the prince of Hesse took possession of the gates on the 24th. The garrison, consisting of 150 men, marched out with the honors of war; and the Spaniards who chose to remain were allowed the same privileges they had enjoyed under Charles II. The works were found very strong, and the place well provided with ammunition and military stores: yet the capture was held of little value by the British court.

This conquest was achieved with the loss of about sixty killed and 216 wounded on the part of the English. The prince of Hesse remained

governor, and eighteen men of war were left at Lisbon under the command of Sir John Leake, to succour the garrison if there should be occasion. The loss of such an important fortress, however, having alarmed both the courts of Madrid and Paris, orders were sent to the marquis de Villadarias a Spanish grandee, to lay siege to it. The prince of Hesse immediately applied to Sir John Leake for assistance; but, before the latter had time to comply with his request, a French fleet arrived, and debarked six battalions to assist the Spaniards; after which they proceeded to the westward, leaving only six frigates in the bay. The trenches were opened on the 11th of October, about which time Sir John arrived with twenty sail of English and Dutch ships; but, hearing that the French were about to attack him with a superior force, he returned to refit. Having left orders at Lisbon to make preparations for this purpose, he accomplished the work with such expedition that, on the 29th, he returned, and surprised in the bay three frigates, a fire ship, two English prizes, a tartan, and a store ship. After this he landed some reinforcements, supplied the garrison with six months' provisions, and sent on shore 500 sailors to assist in repairing the breaches. The Spaniards supposing that the garrison would now be off their guard, on account of the vicinity of their fleet, formed the rash design of attempting to surprise the place, though the British admiral was still before it. In this mad attempt 500 brave volunteers associated, taking the sacrament never to return unless they accomplished their purpose. They were conducted by a goat-herd to the south side of the rock near the cave-guard. This they mounted, and lodged themselves the first night in the cave of St. Michael: the next they scaled Charles V.'s wall; surprised and massacred the guard at Middle-hill; where afterwards, by ropes and ladders, several hundreds of the party designed to support them were hauled up; but, being discovered, they were attacked by a party of grenadiers, and all either killed or taken. Notwithstanding these misfortunes the Spaniards continued the siege, and fitted out a strong squadron from Cadiz, to intercept the provisions sent to the garrison; expecting that, on the arrival of their fleet, Sir John would be obliged to retire, and the garrison to surrender. They continued their fire therefore with additional fury, dismounted many of the cannon, and did essential injury to the works, in several different places. The prince of Hesse, however, exerted his utmost to disappoint their expectations. As it was probable that they might attempt to storm the curtain, a curvette was dug in the ditch, which was filled by the tide, and a double row of palisades placed parallel to the works; and the chambers of the mine under the glacis were loaded; but on a sudden the Spaniards altered their design, and threatened an attack on the lines which the garrison had on the declivity of the hill to flank the glacis, and overlook their advanced works. While affairs were in this situation, part of the succours they had long expected arrived in the bay, Dec. 7th 1704; and in two days after, the remainder came in with nearly 2000 men, and a proportionable quantity of ammunition and provisions. These had sailed from Cape Spartel, and were in danger of falling into the hands of the enemy, whose fleet they mistook for their own; but escaped by being becalmed. Sir John Leake, having thus powerfully reinforced the garrison, set sail for Lisbon, where he arrived about the end of the year. In the beginning of 1705 the Spaniards were reinforced by a considerable body of infantry, and on the 11th of January made an attack on the King's Lines, but were repulsed. The attack was renewed next day by 600 grenadiers, French and Walloons, supported by 1000 Spaniards, under lieutenant general Fuy. They showed an intention to storm a breach which had been made in the round tower at the extremity of the King's Lines, and another in the entrenchment on the hill. The retrenchment which covered the latter, with part of the entrenchment joining the precipice of the rock, was defended at night by a captain, three subalterns, and ninety men; but the captain usually withdrew, with two subalterns and sixty men, at day break. The round tower was defended by 180 men, commanded by a lieutenant colonel. The marquis, by deserters from the garrison, had obtained intelligence of the strength of these posts, and planned his attack accordingly. The detachment for the upper breach mounted the rock at midnight, and concealed themselves in the clifts until the captain had withdrawn; after which, advancing to the point of the entrenchment, they threw grenades on the subaltern and his party, so that they were obliged to leave the place. At the same time 300 men stormed the round tower, where lieutenant colonel Bar made a vigorous defence, though the enemy annoyed them on the flanks with great stones and grenades. Observing, however, the Spaniards marching down to cut off his retreat from the town, he retired; and, by getting over the parapet of the king's lines, descended into the covered way, where the English guards were posted. Thus the garrison were alarmed; all the regiments were assembled at their proper posts; and captain Fisher endeavoured to stop the progress of the enemy with seventeen men, but they were repulsed, and himself taken prisoner. At last, however, the tower was retaken by lieutenant colonel Moncal at the head of 400 or 500 men, after it had been in the possession of the enemy upwards of an hour. The garrison were now farther reinforced by six companies of Dutch troops and 200 English soldiers, with provisions and stores. The assailants, however, were still determined to go on. The marquis de Villadarias was superseded by marischal Tesse, a Frenchman, with whom admiral Pointis was desired to co-operate in blocking up the place. The marischal joined the army with four fresh battalions, besides eight companies which had been sent before; the ordnance, which had been greatly injured, was exchanged, and the works put into the best repair. On the part of the English, a reinforcement was ordered under Sir Thomas Dilkes and Sir John Hardy, to join admiral Leake at Lisbon: which being effected, the whole fleet, consisting of twenty-eight English, four Dutch, and eight Portuguese men of war, having on board two

battalions of land forces, set sail from Lisbon. And happily for the besieged, the incessant rains and storms had retarded the operations of the land forces, and greatly distressed the enemy's fleet; eight of their ships having been forced from their anchors. At this critical period Sir John Leake, with the allied fleet, entered the straits, when the few remaining French ships put out to sea, and he immediately gave chace. Three men of war were taken; the admiral's ship and another were driven on shore, and burnt; and the rest made the best of their way to Toulon. The garrison was now so well supplied, that marischal Tesse withdrew his troops from the trenches, and formed a blockade, drawing an entrenchment across the isthmus to prevent the garrison from ravaging the country. The prince of Hesse remained for some time in the place, where he repaired the batteries, and made fortifications; after which he joined the archduke Charles at Lisbon. Major-general Rames was now appointed governor of Gibraltar, in which only two new battalions were left, as nothing was to be feared from the enemy. In the course of this siege the Spaniards lost 10,000 men, including those who died of sickness; while the garrison lost only 400. The new governor brought with him 400 men for the greater security of the place; but soon resigned his government to colonel Roger Elliot, during whose time Gibraltar was made a free port by a special order from queen Anne.

Colonel Elliot was succeeded by colonel Congreve before 1714, and he by colonel Cotton soon after. In 1720 the Spaniards threatened another attack, but the design was abandoned. At last, however, in the end of 1726, they assembled an army near Algesiras, encamping, on the 20th of January, 1727, on the plain below St. Roch, and erecting a battery on the beach to protect their camp. Though admiral Hopson was then at anchor in the Bay of Gibraltar, yet, as he had not heard of the commencement of hostilities between Britain and Spain, he allowed the boats of the latter to pass with provisions, arms, and ammunition, between Algesiras and the camp, at the same time that brigadier Kane, who had been a second time sent from Minorca, lay under similar embarrassments. The operations of the Spaniards, however seemed so evidently to tend towards an attack, that the governor thought proper to order such of that nation as were in the town to leave it, and to forbid their galleys to anchor under his guns. The count de las Torres commanded the Spanish forces, amounting to nearly 20,000 men; and soon after forming his camp, he advanced within reach of the garrison. The brigadier then desired him to keep out of his reach, otherwise he should do his utmost to force him; but to this the Spanish commander replied, that he should obey his Catholic majesty's orders, and encroach as far as possible Hostilities, however, were not commenced till the 20th of February 1727, when the Spaniards having brought materials for batteries to the old wind-mill on the neutral ground, it was determined in a council of war, that the Spanish general had commenced hostilities. Still, however, the governor sent to the count to know the reason of breaking ground before the garrison; but received for answer, that 'he was in his master's territories, and was no answerable to any other person for his conduct.' On this the governor opened the batteries of the Old Mole and those of Willis upon the Spanish workmen; however, they persisted in carrying on their operations, and at night marched a party down to the Devil's Tower, where they began a communication with their other works. The governor was now informed by some deserters, that the enemy were forming a mine in a cave under Willis's Battery, with a design to blow it up: but, the plot being thus discovered. a party was immediately stationed to cut off the communication. On the 22d of February the Spaniards opened on the garrison with seventeen pieces of cannon besides mortars; and the day following brigadier Kane left Gibraltar to send a reinforcement from Minorca. On the third of March the enemy opened a new battery of twenty-two guns on the Old Mole, and on the 8th another of fifteen guns, bearing also upon the same Mole, the guns of which had annoyed the western flank of their approaches. All this time the garrison had kept up a constant and well directed fire from the batteries which bore upon the works of the enemy; but the ordnance being old frequently burst; by which they suffered more than from the fire of the besiegers. The latter were also greatly annoyed by the fleet under admiral Hopson and Sir Charles Wager, who, since the beginning of the siege, had intercepted their home-bound ships, and greatly benefited the garrison by bringing the prizes into the bay. But on the arrival of a reinforcement from Minorca, they sailed to the westward, leaving the garrison to defend themselves in the best way they could. The enemy continued to augment their batteries, and erect new ones, until they amounted at last to sixty cannon besides mortars; and, on the 3rd of May, the governor received intelligence that a general assault was intended. Hostilities, however, ceased on the 12th, when news arrived that the preliminaries of a general peace were signed. In the course of this siege the loss of the Spaniards was computed at nearly 3000 men, besides casualties, which could not be ascertained. That of the garrison amounted only to 300; a very small number, considering that during the siege seventy cannon and thirty mortars burst on the batteries.

For upwards of half a century, no farther attempts were made on Gibraltar; but the hostile manifesto, presented by the Spanish ambassador to the court of London, at the commencement of the American war, was soon followed by an interruption of communication betwixt Spain and Gibraltar. No direct intention of attacking it, however, was manifested till the 16th of July 1779, when the port was completely blocked up by a squadron of two seventy-four gun ships, several frigates, galleys, &c. Ten days after they began to form a camp on the plain below St. Roch, three miles from the fortress. The garrison at this time consisted of 5382 men, including officers, with a company of engineers and artificers; but the greatest expectations were formed from the abilities and valor of general

Eliott, the governor. See ELIOTT. As soon as the breaking off the communication with Spain indicated approaching hostilities, the governor took every precaution that could be suggested by military wisdom; but though informed of the rupture betwixt the two courts, and though he beheld the hostile operations of the enemy, he used no means to interrupt them till the 12th September, when the batteries of Green's Lodge, Willis, and Queen Charlotte, were opened for a few hours, with a view to disturb the workmen. From this time to the beginning of 1780 the enemy continued the blockade both by sea and land, but without doing any damage to the works or garrison; and it was not until the 12th of January that a single person was wounded. This happened to be a woman, who, passing near one of the houses, was slightly hurt by a shot from the enemy. In the mean time, however, the usual supplies of provisions being cut off, the garrison began to feel all the horrors of famine. All the necessaries of life were very scarce, and to be procured only at most exorbitant prices. As the rock, however, is almost surrounded by the sea, it was natural to suppose, that in such a scarcity of other provisions great benefit would have been derived from the ocean; but the fishermen, being all foreigners, and under no regulation, took advantage of the scarcity in the garrison to exact a most exorbitant price for the fish. Had matters remained long in this state, the fortress must have fallen into the hands of the enemy. They were, however, effectually relieved in consequence of the repeated victories gained by admiral Rodney over the Spanish fleets, on the 8th and 16th of January 1780; which proved equally serviceable to the garrison and detrimental to the enemy, who were now in great want both of provisions and materials for shipping. The news of the last of these important victories arrived at Gibraltar on the evening of the 17th, and in two days more the garrison was completely relieved by the arrival of the fleet and convoy; when they were farther reinforced by a regiment of Highlanders, consisting of 1051 men, officers included. An opportunity was also taken of sending away with the fleet all the invalids and women in the garrison; with whom they set sail on the 10th of February, leaving in the bay only the Edgar and Panther, ships of the line, with two frigates.

On the departure of the British fleet the blockade was immediately resumed; and, notwithstanding the ample supplies lately received, the garrison soon began again to experience the want of fresh provisions. It had hitherto received these in abundance from the coast of Barbary; but the friendship of the emperor of Morocco was now transferred from Great Britain to Spain in a manner totally unprecedented. Thus the garrison became daily more and more distressed, from being obliged to make constant use of their salt provisions, and even this with the strictest economy. At the same time the defence of the garrison was so vigorous, that while it continued to be supplied even in this scanty manner, the Spaniards began to lose all hope of reducing it; for which reason they formed a project of burning all the British shipping in the bay. The night fixed for executing this scheme was the 6th of June 1780, when ten fire ships, favored by an uncommon darkness, stood over from the Spanish to the British side of the bay. Their design was to set fire to the store-houses and shipping nearest the water side; but, having been too precipitate in firing their ships, they met with a very heavy cannonade, and the attempt was frustrated. On this occasion the skill and intrepidity of the British seamen were eminently displayed. Having manned their boats, they grappled with the fire-ships already in flames, and, notwithstanding the danger of their exploding, towed them clear of the vessels under the walls, and extinguished them. The failure of this project was a grievous disappointment to Don Barcelo the Spanish admiral, who lay ready with his squadron to intercept the British vessels that might attempt to escape; while the batteries on their lines were ready to bombard the town, if the fire-ships had succeeded in causing any conflagration on shore. The failure of this attempt was soon followed by other disasters. As soon as they had, with great labor, constructed new batteries, they were destroyed by the besieged; and their mortification on these occasions was the greater, as the governor allowed them to complete their works before he commenced his destructive operations. Thus the labor of many days was often lost in a few hours, and was again resumed with as little prospect of success as before. The garrison were now, however, considerably annoyed by the Spanish gunboats, to which indeed the shipping were equally exposed. These were vessels from thirty to forty tons burden, constructed so that they lay low and comparatively secure in the water. They had fifteen oars on a side, carried forty or fifty men, with a twenty-six pounder on the prow; and, from the facility of managing them, two were deemed, in calm weather, to be a match for a frigate of moderate size. All their efforts, however, could only reduce the garrison to great straits for want of provisions; and to this dreadful inconvenience the British submitted with the most stoical resignation. From admiral Rodney's departure in February, 1780, to October, almost the only provisions in the garrison were such as tended to produce the scurvy; which accordingly raged in such a manner as to threaten the most fatal consequences. The allowance of salt provisions had hitherto continued undiminished; but now it was judged necessary to reduce the allowance of bread and meat, and to enforce the strictest economy with regard to food. Every thing of this kind that could be practised, however, seemed insufficient to preserve the garrison from want. In the beginning of 1781 provisions became exceedingly scarce, by the almost total expenditure of the public stores, and the vigilance of the enemy's cruisers. About the middle of February the bakers left off work for want of flour; many of the poorer sort wanted bread, and the price of fresh provisions again rose to a most enormous height; while the scarcity of fuel was such, that it was sometimes scarcely procurable in quantity sufficient to dress their victuals. The garrison had hitherto derived assistance occasionally from the gardens

on the neutral ground, though vast quantities of vegetables had been removed thence by the enemy. Towards the end of October 1780, however, the Spaniards expelled the British from these gardens; and from this time the supply of vegetables depended entirely upon cultivation; which, happily for the garrison, was attended with such success, that the produce came at last to be nearly equal to the demand. At last, on the 12th of April 1781, supplies were brought by the British fleet under admirals Darby, Digby, and Ross, though they could not be got in without great difficulty. This so irritated the court of Spain, that they determined to exert their utmost force rather than fail in obtaining their favorite object. The batteries of the besiegers were now mounted with 200 guns of the heaviest metal, and ten mortar-pieces of the largest size. In three weeks this prodigious mass of artillery consumed 100,000 lbs. of gunpowder, and threw into the town 4000 or 5000 shot and shells every day. By such an immense bombardment the town was almost totally laid in ruins. The inhabitants were at last all forced to leave the town, and take shelter under tents, with what accommodation could be provided for them in such scenes of horror and confusion. Numbers took the opportunity of retiring with the fleet; while many that remained were reduced from a state of opulence to the greatest distress. The conduct of the governor, however, was now admirable: he allowed such as chose it a free passage to England, and supplied them with provisions for the voyage. During this bombardment, not only the greatest part of the effects belonging to the inhabitants were destroyed, but the fortifications were in many places greatly injured; and the remainder was destroyed by the soldiers, who were often very insubordinate. Rigorous measures were, therefore, now, of necessity, adopted; and it was intimated, that any soldier convicted of being drunk or asleep upon his post, or found marauding, should be immediately executed.

By the beginning of June, 1781, the enemy had relaxed considerably in their firing, seldom exceeding 600 shot in a day; and they continued gradually to diminish this number so remarkably, that towards the end of August they seldom fired in the day, or above four times in the night. The batteries on land, however, were succeeded by the gun-boats; which renewed every day their attacks, keeping the garrison in continual alarm, and never failing to do more or less execution. To restrain them, a battery of guns, capable of throwing their shot to a great distance, was erected; and, as it reached the enemy's camp, it was determined to open it upon them as often as the gun-boats made their attacks. The besiegers continued still, however, to improve their works, and for this purpose employed the best engineers both of France and Spain; so that by the end of November, 1781, they had brought them to such a state of perfection, as inspired both kingdoms with the most sanguine expectations of success. Governor Eliott was undismayed at these formidable preparations, and suffered them to proceed without molestation that he might at once destroy them. In the night of the 27th of November a chosen party of 2000 men was detached to attack the enemies' works and batteries; and their success was equal to their most sanguine expectation. They marched out in great order and silence about 2 o'clock A. M. under brigadier-general Ross; and arrived with the utmost celerity at the enemy's works, which they stormed and overthrew; spiking all their guns. The artillery-men, artificers, and sailors, exerted themselves so vigorously, that in an hour the whole of the enemy fled; the magazines were blown up, the storehouses of arms, ammunition, and military implements, and all the works that had been constructed, were set on fire, and totally consumed: the whole damage done on this occasion being estimated at upwards of £2,000,000 sterling. In the beginning of December, a partial attempt was made by the Spaniards to repair their works: but it was evident, that if the place could be reduced at all, it must be by some means hitherto unattempted. The Spanish monarch seemed determined however on his object, and was willing to employ the whole strength of his empire. Among the various projects formed, that of the chavalier D'Arcon, a French engineer, was adopted on a larger scale. His plan was to construct such floating batteries as might neither be liable to be sunk or set on fire. Their bottoms were made of the thickest timber, and their sides of wood and cork long soaked in water with a layer of wet sand betwixt them. Their thickness was such, that they were impenetrable to cannon shot; and, to prevent the effects of red hot balls, a number of pipes were contrived to carry water through every part of the vessel, connected with pumps sufficient to furnish a constant supply. The people at the batteries were sheltered from the bombs by a rope-netting made sloping, that they might roll off; and spread with wet skins to prevent fire. Ten of these batteries were constructed out of the hulls of large vessels, of fifty or sixty guns, cut down for that purpose, and carrying from ten to twenty-eight guns each, with about half as many in reserve, in case of accident. Each gun was served by thirty-six artillery-men; and the whole were seconded by eighty large boats carrying guns and mortars of heavy metal; a great number of ships of force and frigates, with some hundreds of small craft, were to accompany them with troops, for the instant execution of what might be judged necessary.

On this occasion upwards of 1000 pieces of artillery, and 80,000 barrels of gunpowder, were provided. A body of 12,000 of the best troops of France were now added to the Spanish army before the place; the body of engineers was the best that both kingdoms could produce; and numbers of volunteers of the best families in both joined the attacking army. The command of it was committed to the duke of Crillon, who had distinguished himself by the conquest of Minorca; and two princes of the blood royal of France, the count of Artois and the duke of Bourbon, came to be witnesses of the meditated enterprise. The former politely transmitted a packet of letters for various individuals in the garrison, which had been intercepted and carried

to Madrid; and which he requested that he might be the means of conveying to those for whom they were designed. Both he and the duke of Bourbon signified to general Eliott, the high regard they had for his person and character; the duke of Crillon expressing the same sentiments. Such a prodigious armament raised the confidence of the besiegers so high, that they looked upon the conquest of the place as an absolute certainty; and the commander in chief was thought by far too modest, when he said, that the garrison might hold out a fortnight. 'It appeared,' says captain Drinkwater, 'that they meant, previous to their final efforts, to strike if possible a terror through their opponents, by displaying an armament more powerful than had probably ever been brought before any fortress. Forty-seven sail of the line, including three inferior two-deckers; ten battering ships, deemed perfect in design, and esteemed invincible, carrying 212 guns; innumerable frigates, xebeques, bomb-ketches, cutters, gun and mortar boats, and smaller craft for disembarking men, were assembled in the bay. On the land side were most stupendous and strong batteries and works, mounting 200 pieces of heavy ordnance, and protected by an army of 40,000 men, commanded by a victorious and active general. In their certainty of success, however, the enemy seemed entirely to have overlooked the nature of that force which was opposed to them; for though the garrison scarcely consisted of more than 7000 effective men, including the marine brigade, they forgot that they were now veterans in this service, had long been habituated to the effects of artillery, and were by degrees prepared for the arduous conflict that awaited them. We were at the same time commanded by officers of approved courage, prudence, and activity; eminent for all the accomplishments of their profession, and in whom we had unbounded confidence. Our spirits too were not a little elevated by the success attending the firing of red hot shot, which in this attack we hoped would enable us to bring our labors to a conclusion, and relieve us from the tedious cruelty of a vexatious blockade.' This was suggested by lieutenant-governor Boyd, and on the 8th September, 1782, their advanced works were almost destroyed by it.

As a prelude to the dreadful storm which was about to be poured forth on this garrison, the enemy on the 9th September opened a battery of sixty-four of their largest cannon, accompanied with a terrible fire from other batteries, and a great number of mortars. On this and the following day an attack was also made upon the batteries erected on Europa Point, which at that time were entirely under the management of captain Curtis of the Brilliant frigate. By these the fire of the Spaniards was so warmly returned, that they not only could make no impression, but were forced to retire, after being so much damaged that two of the principal ships were obliged to withdraw to the bay of Algesiras. On the 12th the enemy made preparations for their grand and decisive attack. Accordingly, on the morning of the 13th, the ten floating batteries came forward, under Don Buenventura de Moreno, a Spanish officer of great gallantry, who had signalised himself at Minorca. Before ten o'clock they had all reached their proper stations, anchoring in a line about 1000 yards from the shore. They then began a heavy cannonade, and were seconded by all the cannon and mortars in the enemy's lines and approaches; at the same time that the garrison opened all its batteries both with hot and cold shot from the guns, and shells from the howitzers and mortars. This terrible fire continued on both sides without intermission until noon; when that of the Spaniards began to slacken, and the fire of the garrison to obtain a superiority. About two o'clock the principal battering ship, commanded by Don Moreno, was observed to emit smoke as if on fire, and some men were seen busy upon the roof, searching from whence it proceeded. The fire from the garrison was now kept up without the least intermission or diminution, while that from the floating batteries was perceived sensibly to decrease; so that about 7 P. M. they fired but few guns, and these only at intervals. At midnight the admiral's ship was on fire, and soon completely in flames. Eight more of these batteries took fire successively; and on the signals of distress made by them, the multitude of feluccas, launches, and boats, with which they were surrounded, all came to their assistance, and began to take the men out of the burning vessels. Captain Curtis, who lay ready with the gun boats to take advantage of any favourable circumstance, came upon them at two A. M., and, forming a line on the enemy's flank, advanced upon them with such expedition as to throw them into entire confusion; they now therefore fled precipitately with all their boats, totally abandoning the floating batteries and all who were in them to perish in the flames, This would undoubtedly have been their fate, had not captain Curtis extricated them at the imminent risk of his own life and that of his men. So zealous was he in this work of benevolence that while his boat was along-side of one of the largest batteries, it blew up, and some heavy pieces of timber pierced the bottom of his boat, killing one man and wounding several others. He himself escaped with difficulty out of this boat, which was sunk, as well as another by the accident. The floating batteries were all consumed; about 400 people being saved from them; many of whom were picked up floating on rafts and pieces of timber. Indeed the blowing up of the batteries as the flames reached their powder-rooms, and the discharge of the guns in succession as the metal became heated by the fire, rendered the attempt to rescue them very dangerous. This terrible catastrophe took place in sight of the combined fleets of France and Spain. It had been proposed that they should co-operate upon this important occasion, by attacking the garrison at Europa Point, and such places as appeared most exposed to an attempt by sea: but they remained inactive, assigning, as a reason for this, the want of wind.

A British fleet in the mean time had assembled at Portsmouth, consisting of thirty-five sail of the line, in excellent condition, and filled with the best officers and sailors in Europe. The command was given to lord Howe, accompanied by admirals Barrington, Milbank, Hood, Sir Richard

Hughes, and commodore Hotham. But the progress of this force to Gibraltar was delayed by contrary winds, and it was not until he had gained the southern coast of Portugal, that lord Howe received information of the defeat of the enemy's attempt on the 13th September. On the 11th October he entered the Straits, and several of the storeships destined for Gibraltar came safe to anchor under the cannon of the fort, without any molestation from the enemy. The combined fleet in the mean time had been much damaged by a storm; two ships of the line were driven ashore near Algesiras; two more were driven out of the bay into the Mediterranean; others lost their masts, and most of them suffered considerably. One in particular, a ship of seventy guns, was carried by the storm across the bay, and ran aground under the works of Gibraltar, where she was taken by the garrison, with her whole complement of men. The combined fleet, however, put to sea on the 13th, with a view to prevent the remaining store-ships that had overshot the bay to the east from making good their entrance; and at the same time to rejoin the two ships that had been separated from the main body. Having the advantage of the wind, they bore down upon the British fleet, which drew up in order of battle to receive them; but, notwithstanding their superiority, they declined coming to an engagement. On the wind becoming more favorable next day, lord Howe took the opportunity to bring in the storeships that were in company; and the day following the remainder were conveyed to Gibraltar, and the troops for the reinforcement of the garrison were landed with a large supply of powder, and provisions. This last relief proved entirely decisive; for though the blockade continued till news arrived of the preliminaries of peace being signed, in the beginning of February, 1783, no other attack was made.

Gibraltar is now a decidedly favorite possession of our government. In war it is a valuable place of rendezvous, and in peace a convenient mercantile depôt. Yet it has been of late questioned, whether all the advantages of this possession are not too dearly purchased, when we calculate the maintenance of a garrison not otherwise necessary, and the large disbursements made since the peace of 1783? It is said to cost annually little short of £400,000.

GIBRALTAR, STRAITS OF, are a narrow sea, which forms the communication between the Atlantic Ocean and the Mediterranean, thereby dividing Europe from Africa; and runs from west to east about thirteen leagues. In this strait there are three remarkable promontories, or capes, on the Spanish side, and as many opposite to them on the Barbary side. The first of these, on the side of Spain, is Cape Trafalgar, opposite to which is Cape Spartel; and, in the neighbourhood of this, stood the fortress of Tangier, once in the possession of the British. The next to the Spanish side is Tarisan, and over against it lies Malabata, near the town of Alcassar, where the straits are about five leagues broad. Lastly, Gibraltar, facing the mountain of Abyla, near the fortress and town of Ceuta, which make the eastern entry of the straits.

GIBSON (Dr. Edmund), bishop of London, was born at Knipe in Westmoreland, in 1669. He early displayed his knowledge in several writings and translations, which recommended him to the patronage of archbishop Tennison, who appointed him his domestic chaplain; and soon after rector of Lambeth, and archdeacon of Surry. Becoming thus a member of the convocation, he defended his patron's rights, as president, in eleven pamphlets; he then completed his scheme of the legal duties and rights of the English clergy, under the title of Codex Juris Ecclesiastici Anglicani, in folio. Archbishop Tennison dying in 1715, and Dr. Wake, bishop of Lincoln, being made archbishop of Canterbury, Dr. Gibson succeeded him in the see of Lincoln, and in 1720 was promoted to the bishopric of London. He spent the latter part of his life in publishing letters, charges, occasional sermons, and tracts against the prevailing immoralities of the age. His pastoral letters are justly esteemed masterly productions against infidelity and enthusiasm. His other publications are, 1. An edition of Drummond's Polemo-Middinia, and James V.'s Cantilena Rustica, with notes; 2. The Chronicon Saxonicum, with a Latin translation, and notes; 3. Reliquiæ Spelmannianæ, the posthumous works of Sir Henry Spelman, relating to the laws and antiquities of England; 4. An edition of Quintilian de Arte Oratoriâ, with notes; 5. An English translation of Camden's Britannia, with additions, 2 vols. folio; and, 6, A number of small pieces, that have been collected and printed in 3 vols. folio. He died, aged seventy-nine, in September 1748.

GIBSON (Richard), an English painter, commonly called the Dwarf, was originally page to a lady at Mortlake; who, observing his genius for painting, generously had him instructed in that art. He devoted himself to Sir Peter Lely's style, and copied his pictures to admiration. His paintings in water colors were also esteemed. He was in great favor with Charles I., who made him his page of the back-stairs; and he had the honor to instruct in drawing queen Mary II., and queen Anne, when princesses. He married Anne Shepherd, who was also a dwarf; on which occasion king Charles I. honored their marriage with his presence, and gave away the bride. Waller wrote a poem on this occasion, entitled 'The Marriage of the Dwarfs.' Fenton, in his notes on this poem, observes, that he had seen this couple painted by Sir Peter Lely; and that they were of an equal stature, each being three feet ten inches high. However, they had nine children, five of whom arrived at maturity, well-proportioned, and of the usual standard of mankind. Mr. Gibson died in the seventy-fifth year of his age; and his wife, having survived him almost twenty years, died in 1709, aged eighty-nine.

GIBYLE, a sea-port town of Tripoli, on the river Jebilee, the ancient Byblos: it is in ruins, and thinly inhabited. It was repeatedly besieged by the Crusaders. Twelve miles S.S.W. of Tripoli.

GID'DILY, *adv.*
GID'DINESS, *n. s.*
GID'DY, *adj.*
GID'DY-BRAINED, *adj.*
GID'DY-HEADED,
GID'DY-PACED.

Sax ȝiddiȝ; Goth. *edga*, to agitate. Having a rotatory or circular motion or sensation. Inconstant; thoughtless; irregu-

lar, whether it relate to mind or body; intoxicated. This word is supposed also, to come from gad, to wander; to be in motion.

The parts that fortune hath bestowed upon her,
Tell her, I hold as *giddily* as fortune. *Shakspeare.*

More than light airs, and recollected terms,
Of these most brisk and *giddypaced* times. *Id.*

As we have paced along
Upon the *giddy* footing of the hatches,
Methought that Glo'ster stumbled. *Id.*

Our fancies are more *giddy* and unfirm,
More longing, wavering, sooner lost and won,
Than women's are. *Id. Twelfth Night.*

There be that delight in *giddiness*, and count it a bondage to fix a belief. *Bacon.*

Megrims and *giddiness* are rather when we rise after long sitting, than while we sit. *Id.*

It may be gnats and flies have their imagination more mutable and *giddy*, as small birds likewise have. *Id.*

To roam
Giddily, and be every where but at home,
Such freedom doth a banishment become. *Donne.*

And sooner may a gulling weather-spy,
By drawing forth heaven's scheme descry
What fashioned hats or ruffs, or suits, next year,
Our *giddy-headed* antick youth will wear. *Id.*

A sodaine north-wind fetcht,
With an extreame sea, quite about againe,
Our whole endeavours; and our course constrain
To *giddie* round. *Chapman.*

That men are so misaffected, melancholy, *giddy-headed*, hear the testimony of Solomon. *Burton on Melancholy.*

Turn him out again, you unnecessary, useless, *giddybrained* ass! *Otway's Venice Preserved.*

The *giddy* vulgar, as their fancies guide,
With noise say nothing, and in parts divide. *Dryden's Æneid.*

Them revelling thus the Tentyrites invade,
By *giddy* heads and staggering legs betrayed. *Tate.*

The indignation of heaven rolling and turning us, 'till at length such a *giddiness* seized upon government, that it fell into the very dregs of sectaries. *South.*

Too many *giddy* foolish hours are gone,
And in fantastic measures danced away. *Rowe.*

The frequent errors of the pathless wood,
The *giddy* precipice, and the dangerous flood. *Prior.*

As Ixion fixed, the wretch shall feel
The *giddy* motion of the whirling mill. *Pope.*

Intestine war no more our passions wage
And *giddy* factions tear away their rage. *Id.*

You are as *giddy* and volatile as ever, the reverse of Pope; who hath always loved a domestic life. *Swift to Gay.*

GIDEON, Heb. גדעון i. e. a destroyer, the son of Joash, a Manassite, who had a very extraordinary call to deliver the Israelites from the oppression of the Midianites. Having effected their deliverance by supernatural aid, he was chosen judge of Israel, A. M. 2759, and died in 2798. See Judges vi. vii. and viii.

GIENS, a town and arrondissement of the department of the Loire, in a neighbourhood very fertile in corn, wine, and saffron. The arrondissement contains forty-nine communes, and 38,550 inhabitants. In the town are brass-works and tanneries. Population of the town 5022. It is twenty-one miles south of Montargis, and thirty-three south-east of Orleans.

GIER-EAGLE, *n. s.* Sometimes it is written jer-eagle. An eagle of a particular kind. Bochart thinks the vulture is meant below.

These fowls shall not be eaten, the swan, and the pelican, and the *gier-eagle*. *Leviticus* xi. 18.

GIESSEN, a walled town of Hesse-Darmstadt, the seat of the civil and ecclesiastical courts of Upper Hesse, between the Lahn and the Wiesek. It has some woollen and cotton manufactures; but its trade is inconsiderable, and the arsenal of little military importance. A university was founded here in 1607. Population 7700. Six miles east of Wetzlar, and thirty-six north-east of Mentz.

GIFANIUS (Obertus, or Hubert), LL. D., a learned critic and civilian, born at Bueren in Guelderland, in 1534. He studied at Louvain and Paris, and erected the German library at Orleans; where he took his degree in 1567. He taught civil law and philosophy at Strasburg, Altdorf, and Ingoldstadt; and wrote several tracts, besides comments on ancient authors. Though bred a protestant, he turned Roman Catholic, and was made counsellor to the emperor Rodolph. He was very avaricious, and is accused of suppressing the MSS. of Fruterius, a youth of extraordinary genius, who died at Paris, aged twenty-five, and left them to his care. Gifanius died at Prague in 1604.

GIFFORD (Andrew), D. D., an eminent English dissenting divine and antiquarian, born August 17th, 1700. He was the son of Emanuel Gifford, minister of a Baptist church at Bristol, and was educated at Tewksbury, under the Rev. Mr. Jones, and the celebrated Dr. Ward. He joined his father's church, and was baptized in 1723; he preached to the church at Nottingham in 1725; and was ordained and settled at London, February 5th, 1730. In 1731 Sir Richard Ellys appointed him his chaplain. In 1754 the Marischal College of Aberdeen presented him with a diploma. He was also admitted a member of the Society of Antiquaries, and, in 1757, was appointed assistant librarian to the British Museum. He died 19th June, 1784, leaving his museum and library to the Baptist academy at Bristol.

GIFFORD (John), a modern political writer, whose real name is said to have been John Richard Green. He was born in 1758, and educated by his grandfather, who enabled him to enter as a gentleman commoner at St. John's College, Oxford. He adopted the legal profession; but dissipated his fortune, and, having involved himself in difficulties, travelled on the continent under the above assumed name. Returning to England, in 1788, he became a political writer and alarmist; a contributor to the British Critic and Antijacobin Review, &c. He was also the author of The Reign of Louis XVI., and complete History of the French Revolution, 1794, 4to; The History of France, from the earliest Times to the End of the Revolution, 1795, 5 vols. 4to; A Residence in France in the Years 1792, 1793, 1794, and 1795, &c., 1797, 2 vols. 8vo; and A History of the Political Life of the Right Honorable William Pitt, 3 vols. 4to. Mr. Gifford received finally a pension from the government, and was made one of the police magistrates

of the metropolis. He died at Bromley, Kent, March 6th, 1818.

Gifford, a small river in East Lothian, remarkable for an extraordinary flood on the 4th October, 1755, which carried down many trees and most of the bridges in the parish of Yester, though no quantity of rain had previously fallen.

GIFT, *n. s.* } Saxon ȝift: Gothic *giuft.*
Gif'ted, *adj.* } See Give. Any thing bestowed or offered; a bribe; a power or faculty; an endowment. A gifted person is one who possesses extraordinary powers or talents.

Thou shalt not wrest judgement, thou shalt not respect persons, neither take a *gift*; for a *gift* doth blind the eyes of the wise. *Deut.* xvi. 19.

They presented unto him *gifts*, gold, and frankincense and myrrh. *Matt.* ii. 11.

Many nations shall come with *gifts* in their hands, even *gifts* to the king of heaven. *Tob.* xiii. 11.

Why then will ye fond Dame! attempted bee
Unto a stranger's love, so lightly placed
For *guiftes* of gold or any worldly glee,
To leave the love that ye before embraced
And let your fame with falsehood be defaced.
Spenser's Faerie Queene.

And if the boy have not a woman's *gift*,
To rain a shower of commanded tears,
An onion will do well for such a shift.
Shakspeare.

All his practice is deceit,
Every *gift* it is a bait. *Ben Jonson.*

No man has any antecedent right or claim to that which comes to him by free *gift*. *South.*

They cannot give;
For had the *gift* been theirs, it had not here
Thus grown. *Milton.*

Thee all things living gaze on, all things thine
By *gift*. *Id.*

Made of my enemies the scorn and gaze,
To grind in brazen fetters, under task,
With my heaven *gifted* strength. *Id. Agonistes.*

Creator bounteous, and benign,
Giver of all things good, but fairest this
Of all thy *gifts*, nor envyest. *Milton.*

Two of their *gifted* brotherhood, Hacket and Coppinger, got up into a pease-cart, and harangued the people to dispose them to an insurrection. *Dryden.*

Recall your *gift*, for I your power confess;
But first take back my life, a *gift* that's less. *Id.*

He who has the *gift* of ridicule, finds fault with any thing that gives him an opportunity of exerting his talent. *Addison.*

There is no talent so pernicious as eloquence, to those who have it not under command: women, who are so liberally *gifted* by nature in this particular, ought to study the rules of female oratory.
Id. Freeholder.

Oh man! creation's pride, Heaven's darling child,
Whom Nature's best divinest *gifts* adorn,
Why from thy home are truth and joy exiled,
And all thy favourite haunts with blood and tears defiled? *Beattie.*

——And for this——
A being of the race thou dost despise,
The order which thine own would rise above,
Mingling with us and ours; thou dost forego
The *gifts* of our great knowledge, and shrinkest back
To recreant mortality—Away! *Byron's Manfred.*

Gift, donum, in law, is a conveyance which passes either in lands or goods; and is of a larger extent than a grant, being applied to things moveable and immoveable; yet, as to things immoveable, when taken strictly, it is applicable only to lands and tenements given in tail; but gift and grant are too often confounded.

Gift, or grant, as a method of transferring *personal* property, answers in some measure to the conveyances of real estates. Gifts and grants are however thus to be distinguished from each other: gifts are always gratuitous; grants, on the contrary, are upon some consideration or equivalent: and, in respect to their subject matter, they may be divided into gifts or grants of chattels real, and gifts or grants of chattels personal. Under the former may be included all leases for years of land, assignments, and surrenders of these leases; and all the other methods of conveying an estate less than freehold; though these very seldom carry the outward appearance of a gift, however freely bestowed; being usually expressed to be made in consideration of blood, or natural affection, or of five or ten shillings nominally paid to the grantor; and, in case of leases, always reserving a rent, though it be but a pepper-corn:—any of which considerations will, in the eye of the law, convert the gift, if executed, into a grant; if not executed, into a contract.

In grants or gifts of chattels personal, one man renounces, and another man *immediately* acquires, all title and interest therein: which may be done either in writing or by word of mouth, attested by sufficient evidence, of which the delivery of possession is the strongest and the most essential. But this conveyance, when merely voluntary, is somewhat suspicious; and is usually construed to be fraudulent, if creditors or others become sufferers thereby. By stat. 3 Hen. VII., cap. 4, all deeds of gift of goods, made in trust to the use of the donor, shall be void; because, otherwise, persons might be tempted to commit treason or felony, without danger of forfeiture; and the creditors of the donor might also be defrauded of their right. And by 13 Eliz. cap. 5, every grant or gift of chattels, as well as lands, with an intent to defraud creditors or others, shall be void, as against such persons to whom such fraud would be prejudicial: but, as against the grantor himself, shall stand good and effectual; and all persons partakers in, or privy to, such fraudulent grants, shall forfeit the whole value of the goods, one moiety to the king, and another moiety to the party grieved; and also, upon conviction, shall suffer imprisonment for half a year. See Fraud.

The conveyance of *lands* by gift, 'donatio,' is properly applied to the creation of an estate-tail, as feoffment is to an estate in fee, and lease to that of an estate for life or years. It differs in nothing from a feoffment, but in the nature of the estate passing by it; for the operative words of conveyance in this case are do or dedi (West. Symbol. 256); and gifts in tail are equally imperfect without livery of seisin, as feoffments in fee simple. (Litt. sect. 59.) This is the only distinction which Littleton seems to make, when he says (sect. 57), 'it is to be understood, that there is feoffor and feoffee, donor and donee, lessor and lessee;' viz., feoffor is applied to a feoffment in fee-simple, donor to a gift in tail, and lessor to a lease for life, or for years, or at will.

GIG, *n. s.* Fr. *gigue;* Goth. *ga, gega,* to go; Isl. *gigia.* A vehicle with two wheels; a sound

produced by wind; any thing that is whirled round in play; a fiddle (now out of use).

This house was al so full of *gigges*,
And al so full, eke, of chirkinges,
And of many other wirkinges.
Chaucer. House of Fame.

Playthings, as tops, *gigs*, battledores, should be procured them. *Locke.*

Thy coach of hackney, whiskey, one horse chair,
And humblest *gig*, through sundry suburbs whirl
To Hampstead, Harrow, Brentford, make repair.
Byron.

GIGA'NTIC, *adj.* Lat. *gigantes*. See GIANT. Suitable to a giant; big; bulky; enormous; likewise wicked; atrocious.

I dread him not, nor all his giant brood,
Though fame divulged him father of five sons,
All of *gigantick* size, Goliah chief.
Milton's Agonistes.

Others from the wall defend
With dart and javelin, stones, and sulphurous fire;
On each hand slaughter and *gigantick* deeds.
Milton.

The son of Hercules he justly seems,
By his broad shoulders and *gigantick* limbs.
Dryden.

The Cyclopean race in arms arose,
A lawless nation of *gigantic* foes.
Pope's Odyssey.

They were *gigantic* minds, and their steep aim
Was Titan-like, on daring doubts to pile
Thoughts which could call down thunder and the flame
Of heaven, again assailed, if heaven the while
On man and man's research could deign do more than smile.
Byron.

GI'GGLE, *v. n.* } Sax. ȝeaȝl; Dutch *gichelen*. To laugh idly; to titter.
GI'GGLER, *n. s.* }

A sad wise valour is the brave complexion,
That leads the van, and swallows up the cities:
The *giggler* is a milk-maid, whom infection,
Or the fired beacon, frighteth from his ditties.
Herbert.

We shew our present joking, *giggling* race;
True joy consists in gravity and grace.
Garrick's Ep.

GIGHA, GIGA, or GIGO, one of the Hebrides; lying on the west coast of Kintyre, in Argyleshire, eleven miles E. S. E. of Ilay; it is seven miles long from north-east to south-west, and two and a half broad. The greater part of it is arable. The west coast is high and rocky. On the east there are several dangerous sunk rocks. Shell-fish, particularly lobsters, crabs, cockles, and razor or spout-fish, abound on the shores. Large cod, weighing from six to sixteen lbs. each, with skate, ling, large haddocks, &c., also abound. There is a regular ferry between Gigha and Kintyre. On the island are several caves and cairns; and it abounds with excellent spring water, though it has neither lakes nor rivers. Nothing can exceed the view from Gigha in variety and grandeur. The soil is mostly a rich loam, with a mixture, in some places, of sand, moss, or clay; vegetation is quick, and the air salubrious. Great improvements have been lately made in its agriculture, and particularly in the drainage; large portions of land, formerly lying waste, having been inclosed, and now producing excellent crops. Population about 1000. Long. 5° 43′ W., lat. 55° 44′ N.

GI'GLET, *n. s.* Sax. ȝeaȝl; Dut. *geyl*; Scot. *gillet*, is still retained. A wanton; a lascivious girl. Now out of use.

Young Talbot was not born
To be the pillage of a *giglet* wench.
Shakspeare.

Away with those *giglets* too, and with the other coufederate companion. *Id. Measure for Measure.*

GIGLIO, ISOLA DI, a wine island on the coast of Tuscany, at fourteen or fifteen miles distance from the isthmus of Monte Argentaro, and seventeen west of Porto Ercale. It consists of hilly ground, covered with wood and vines, and containing caves of beautiful marble. It is inhabited by about 1200 persons, employed in agriculture and fishing, particularly for pilchards. Long. 10° 55′ E., lat. 42° 24′ N.

GI'GOT, *n. s.* Fr. The hip joint. It seems to mean in Chapman a joint for the spit.

The inwards slit,
They broiled on coales, and eate: the rest, in *gigots* cut, they spit. *Chapman.*

GIJON, a sea-port, situated on a peninsula, in the province of Asturia, Spain. The harbour is well sheltered, has a sound bottom, and is capable of admitting ships of any burden. The town contains a school for navigation, mineralogy, and mathematics; and the environs produce maize, rye, chestnuts, apples, and cyder. Millstones also are exported in quantities. Inhabitants 3200. Eighteen miles north of Oviedo.

GILBERD, or GILBERT (William), a celebrated physician, born at Colchester, in 1540. Having spent some time in both universities, he went abroad; and at his return settled in London, where he practised with considerable reputation. He became a member of the college of physicians, and physician in ordinary to queen Elizabeth, who gave him a pension. He was also physician to king James I. He died in 1603, aged sixty-three, in Colchester, where a handsome monument was erected to his memory. His books, globes, instruments, and fossils, he bequeathed to the college of physicians, and his picture to the school gallery at Oxford. He wrote, De Magnete, Magneticisque Corporibus, et de Magno Magnete Tellure, Physiologia Nova: London, 1600, fol. 2. De Mundo Nostro Sublunari, Philosophia Nova; Amsterdam, 1651, 4to. He also invented two mathematical instruments for finding the latitude at sea without the help of sun, moon, or stars. A description of these instruments was afterwards published by Thomas Blondeville in his Theoriques of the planets.

GILBERT (Sir Humphrey), a skilful navigator, born about 1539, in Devonshire, of an ancient and honorable family. He was educated at Eton and Oxford for the legal profession, but being introduced at court by his aunt, Mrs. Catharine Ashley, then in the queen's service, he was diverted from the study of the law, and commenced soldier. Having distinguished himself in several military expeditions, particularly that of Newhaven, in 1563, he was sent over to Ireland to assist in suppressing a rebellion; where, for his signal services, he was made commander-in-chief and governor of Munster,

and knighted by the lord deputy, Sir Henry Sidney, in 1570. He returned soon after to England, where he married a rich heiress. In 1572 he sailed with a squadron of nine ships to reinforce colonel Morgan, who meditated the recovery of Flushing. In 1576 he published his book on the North-West Passage to the East Indies. In 1578 he obtained an ample patent, empowering him to possess in North America any lands then unsettled. He sailed to Newfoundland, but soon after returned to England without success; nevertheless, in 1583, he embarked a second time with five ships, the largest of which put back on account of a contagious distemper on board. He landed on Newfoundland on the 3rd of August, and on the fifth took possession of the harbour of St. John's. By virtue of his patent, he granted leases to several people; and, though none of them remained there at that time, they settled afterwards in consequence of these leases. On the 20th of August he put to sea again, on board a small sloop; which on the 29th foundered in a hard gale of wind. Thus perished Sir Humphrey Gilbert; a brave officer, a good mathematician, a skilful navigator, and of a very enterprising genius. He also was remarkable for his eloquence, being much admired for his patriotic speeches in the English and Irish parliaments His work, entitled A Discourse to Prove a Passage by the North-West to Cathaia and the East Indies, is a masterly performance, and is preserved in Hakluyt's Collection of Voyages, vol. iii. p. 11. The style is superior to most, if not to all the writers of that age; and shows the author to have been a man of considerable reading.

GILBERTINES, an order of religious, thus called from St. Gilbert, of Sempringham, in Lincolnshire, who founded it about 1148. The monks observed the rule of St. Augustine, and were accounted canons; and the nuns that of St. Benedict. The founder erected a double monastery, or rather two contiguous to each other, the one for men, the other for women, but separated by a very high wall. He founded thirteen monasteries of this order, viz. four for men alone, and nine for men and women together, which had in them 700 brethren, and 1500 sisters. At the dissolution there were about twenty-five houses of this order in England and Wales.

GILBOA, in ancient geography, mountains of Samaria, stretching from west to east on the confines of the half tribe of Manasseh, and of the tribe of Issachar; and to the south of the valley of Jezreel, beginning westward at the city of Jezreel, at the foot of these mountains, reaching almost quite to the Jordan, six miles from Scythopolis. They are famous for the death of Saul and Jonathan, and the defeat of the Israelites by the Philistines.

GILCHRIST (Octavius), F.S.A., a distinguished modern critic, was the son of an officer of the third regiment of dragoon guards. He was born in 1779, at Twickenham, and educated at Magdalen College, Oxford. His principal works are, An Examination of the Assertions of Ben Jonson's enmity to Shakspeare, 8vo. 1808; an edition of the Poems of Bishop Corbet, with Notes, and a Life of the Author, 8vo. 1808; and a Letter to W. Gifford, Esq., on a late edition of Ford's Plays. He is said also to have collected materials for a work intended to illustrate the Rise and Progress of the English stage, comprehending specimens of the minor dramatic writers anterior to the Revolution, &c. The appearance, however, of a similar publication in periodical numbers, entitled Old Plays, deterred him from publication. He died at Stamford, in Lincolnshire, in June, 1823, aged forty-four.

GILD, *v. a.* / GIL'DER, *n. s.* / GIL'DING, *n. s.* / GILT, *n. s.* & *part.* } Sax. gilban; Goth. *gilda*; from GOLD, which see. To overlay with gold; to brighten, or illuminate; to recommend by adventitious ornaments: the person who lays on the gold; a coin from one shilling and sixpence to two shillings.

—Yclothed was this mightie god of love
In silke, embroided full of grené greves;
In whiche there was a fret of red rose leves,
The freshest sins the worlde was first begon:
His *gilt* here was ycrouned with a son.
Chaucer. Prologue to Legende of Good Women.

The room was large and wide,
As it some *gilt* or solemn temple were:
Many great golden pillars did uprear
The massy roof. *Spenser.*

Silvering will sully and canker more than *gilding*, which, if it might be corrected with a little mixture of gold, there is profit. *Bacon.*

Gilders used to have a piece of gold in their mouth, to draw the spirits of the quicksilver. *Id.*

Our gayness and our *gilt* are all besmirched,
With rainy marching in the painful field.
Shakspeare.

When thou wast in thy *gilt*, and thy perfume, they mockt thee for too much curiosity: in thy rags thou knowest none, but art despised for the contrary.
Id. Timon of Athens.

I am bound
To Persia, and want *gilders* for my voyage.
Shakspeare.

For my part, if a lie may do thee grace,
I'll *gild* it with the happiest terms I have. *Id.*

Thou did'st drink
The stale of horses and the *gilded* puddle
Which beasts would cough at.
Id. Antony and Cleopatra.

To *gild* refined gold, to paint the lily,
To throw a perfume on the violet. *Shakspeare.*

When Britain, looking with a just disdain
Upon this *gilded* majesty of Spain,
And knowing well that empire must decline,
Whose chief support and sinews are of coin.
Waller.

And the *gilded* car of day
His glowing axle doth allay
In the steep Atlantic stream. *Milton.*

Yet, oh! the' imperfect piece moves more delight;
'Tis *gilded* o'er with youth, to catch the sight.
Dryden.

The lightsome passion of joy was not that trivial, vanishing, superficial thing, that only *gilds* the apprehension, and plays upon the surface of the soul.
South.

Purchasing riches with our time and care,
We lose our freedom in a *gilded* snare.
Roscommon.

Her joy in *gilded* chariots, when alive;
And love of ombre after death survive. *Pope.*

No more the rising sun shall *gild* the morn,
Nor evening Cynthia fill her silver horn.
Id. Messiah.

Could laureate Dryden Pimp and Fryer engage,
And I not strip the *gilding* off a knave,
Unplaced, unpensioned, no man's heir or slave!
Pope.

Where the *gilt* chariot never marked its way.
Id.

We have here a *gilder*, with his anvil and hammer.
Broome.

This waving field is *gilded* o'er with corn,
That spreading tree with blushing fruit adorn.
Gay.

But death is imaged in shadowy beams,
A picture is the past; even ere its frame
Be *gilt* who sate hath ceased to be the same.
Byron.

GILD, or GUILD. See GUILD.

GILDING, as an adaptation of gold, in the fine and mechanical arts, was not unknown in the ancient world. Pliny states, that the first attempts at the practice of the art seen at Rome was under the censorship of Lucius Mummius, after the destruction of Carthage, when they began to gild the ceilings of the temples and palaces; the capitol being the first place on which this enrichment was bestowed. But he adds, that luxury advanced on them so hastily, that in a little time you might see all, even private and poor persons, gild the very walls, vaults, &c., of their houses. They seem to have had the method now practised of beating gold, and reducing it into leaves; though they did not carry it to the same extent. Pliny says, that they only made 750 leaves of four fingers square out of a whole ounce. But he adds, that they could make more; that the thicker leaves were called bracteæ Prænestinæ, from a statue of Fortune at Præneste, gilt with such leaves; and the thinner sort bracteæ questoriæ. The ancients seem to have had no method of gilding bodies that would not endure the fire, but with whites of eggs or size, neither of which will endure the water; so that they could only gild such places as were sheltered from the moisture of the weather. The Greeks called the composition with which they applied their gilding on wood leucophæum, or leucophorum; which is described as a sort of glutinous compound earth, serving in all probability to make the gold adhere, and bear polishing. But the particulars of this earth, its color, ingredients, qualities, &c., antiquaries and naturalists are not agreed upon. Homer mentions the manner in which the horns of the ram brought by Nestor as an offering to Minerva, were gilt.—*Odys.* l. iii. 492.

The different states in which gold is used for the purposes of modern gilding are the following:—(1.) In the shape of leaf gold of different degrees of thickness, and formed either of the pure metal, or of an alloy of this with silver; (2.) As an amalgam of gold; and (3.) In gold powder.

1. The leaf-gold is procured by the gilder from the gold-beater, whose art consists in hammering a number of thin rolled plates of the metal, between skins, or animal membranes.

2. The amalgam of gold is made by heating in a crucible some pure quicksilver; and, when it is nearly in the boiling state, about the sixth part of its weight of fine gold in thin plates, heated red-hot, is to be immersed in it. The mixture soon becomes homogeneous, and then it is allowed to cool. When cold it is to be put in a piece of soft leather, and by gradual pressure the fluid part of the amalgam, consisting almost wholly of mercury, may be forced through the pores of the leather, while the gold, combined with about twice its weight of mercury, will remain behind, forming a yellow silvery mass of the consistency of butter. This, after being bruised and ground in a mortar, or shaken in a strong phial, with repeated portions of salt and water, till the water comes away quite clear and unsoiled, is fit for use, and may be kept for any length of time, without injuring, in a corked phial. It is of the utmost importance that the materials of this amalgam, and especially the mercury, should be perfectly pure, as the least portion of lead or bismuth would very materially injure the beauty of the gilding, by deteriorating the color of the gold, and filling it with black specks.

3. Gold in powder is prepared by three different methods; the first and most simple is, to put into a glass or earthen mortar some gold leaf, with a little honey, or thick gum-water, and to grind the mixture for a considerable time, till the gold is reduced to extremely minute fragments; when this is done, the honey or gum may be washed away, leaving the gold behind in a flaky, or pulverulent state. A more effectual and quicker method of reducing gold to a state of powder, is to dissolve it in aqua regia, or, as it is now denominated, in nitro-muriatic acid, and then precipitate it with a piece of copper. The precipitate, after being digested in distilled vinegar, and then washed with pure water, and dried, is in the form of a very fine powder, and is said to work better, and is fitter for burnishing, than the powder obtained from leaf-gold. The very finest ground gold is produced by heating very gradually the gold amalgam already described, in an open earthen vessel, and containing the fire till the whole of the mercury is evaporated; taking care that the amalgam shall be constantly stirred with a rod of glass, to prevent the particles of gold from adhering as the mercury flies off. When the mercury is completely evaporated, the residual gold being then ground in a Wedgwood-ware mortar, with a little water, and afterwards dried, is fit for use.

PART I.

OF GILDING WITHOUT HEAT.

Gilding is performed either with or without heat. By the first of these methods those substances are gilt which are not liable to alteration, by exposure to a moderate heat, such as metals, glass, and porcelain. The second method is practised with those substances, as wood, paper, lead, &c., which would be destroyed by being raised to a temperature requisite for gilding the former. We shall first attend to the mechanical art of gilding on wood.

This, both in oil and burnish, is at present at its highest perfection, and is executed in London better than in any other part of the world. That

which is brought from France, and other parts of the continent, is by no means equal to the London work; not that it is to be inferred from hence, that gilding is well executed by all who undertake it in the metropolis. Many men, who have practised this art all their lives, are unable properly to gild a common picture-frame.

Of burnished gilding on wood.—To begin with picture-frames or mouldings, which are the simplest. In an earthen pan, that will hold a quart, take three half-pints of strong size, make it warm, and add some of the best whiting powdered fine; mix them with a brush till they become thoroughly incorporated, and of the consistency of thick cream; put a little of this mixture, with an equal quantity of size, half the former strength, into another pan, heat it till nearly boiling, and, with a brush, lay it over the whole work; this is called thin whitening the work, and makes a ground for the other operations. When the wood is not clean, it is usual to wash it all over with a sponge dipped in hot water, before the thin white is applied, which precaution will prevent the chipping up of the preparation. The coat of thin white should be particularly well dried; after which the work is to receive four more coats of that which is made of the consistency of thick cream; it must be warm, but not so hot as for the first white, taking care that one coat is dry before another is applied. Here it is necessary to observe that, throughout this process, one coat must be dry before another is applied, whatever may be the composition used. The sixth coat, which is also of thick white, must be laid on by passing the brush in a smooth, even, and flowing manner, over two feet of the work at a time, in order to gain a surface, and facilitate the smoothing, hereafter to be described. Before the whitening is dry, the flat parts should be rubbed down with a chisel, the hollows with a gouge, and the rounds with the finger, or fingers, as is most convenient; should the hollows be too large for a gouge, the finger will answer every purpose. When dry, any superfluous whitening that may have fallen over the edges of the mouldings, &c., may be pared off with a chisel or a gouge, according as the parts are situated; then give it a seventh coat, similar to the preceding, and it will be ready for smoothing, which should be performed in the following manner:—

Take some close-grained pumice-stone, and with a sash saw cut it into pieces about three or four inches long (if the work be very small, an inch, or inch and a half will do), rasping or filing them to fit the different mouldings. The flats are to be made by rubbing a piece of the pumice on a smooth stone, making the sides at right angles, that it may smooth two sides at the same time. During these operations, the pumice-stone must be frequently dipped in water. Lay the pieces, thus prepared, in a large earthen pan full of water, not less than two quarts, take a hogs'-hair brush and a sponge, both of convenient sizes, dip the brush in the water, and wet about two feet of the work at a time, taking the mouldings alternately; then, with the pumice already fitted, rub up and down till a smooth surface is obtained, remove the water with the brush, and squeeze it into the pan: what remains may be taken off with the sponge, which will complete the smoothing of that piece. Proceed in the same manner with similar portions; for, if too much be wetted at a time, the whitening becomes soft and unfit to bear the pumice-stone; the work must then be set aside to dry.

In carved work, the operations of whitening and smoothing differs somewhat from the preceding. After the thin white is dry, the coats that follow must be rather weaker, and not so thick as for frames or mouldings; they are to be laid on by carrying the brush over the work in an even and smooth, but not flowing manner. To smooth, or produce the surface that is required, pieces of lime-wood, or fir, soaked in water instead of pumice, are used, shaped round, flat, or angular, as may be found necessary, occasionally wrapping round them strips of linen cloth. In smoothing, care must be taken not to rub off too much of the whitening, or the gilding will look poor, and it will prevent the burnishing of those parts thereby brought too near the wood. The drying may be hastened in summer by the sun, in winter by placing the work before the fire; not too near, or the whitening will chip.

Now mix a little strong size, with four times as much water, in a half pint earthen pan; these proportions should be adapted so as to make it three parts full; add a quantity twice the size of a large walnut, and half as much prepared yellow stone ochre: mix them well together with a brush, and coat the work once over, when dry, rub it slightly with glass-paper, half-worn out, to improve the surface; then proceed to mix and lay on the gold-size. In another half-pint earthen pan, half full of clear size, mix a quantity of burnished gold-size, twice as big as a large walnut, with which coat the work twice over. When dry, burnish the parts intended to be matted with a burnishing stone. (The burnishing is performed by the friction of a curved polished flint, or agate set in ferules with wooden handles, and termed burnishing stones.) Then give it another coat of the same gold-size. But this must now be reduced by adding to it about two tea-spoons full of water, and as much gold-size as you can take upon the point of a knife. Coat those parts only that are intended to be burnished: and here it must be observed, that in laying gold-size on carved work after it is yellowed, those parts should be missed that are too small to receive the gold from the pencil, such as the small eyes of foliage, &c., to which effect must afterwards be given with high-colored or-moulu; and proceed to lay on the gold with a cushion, knife, and tip, as will be described in oil gilding. But in burnish gilding, camels'-hair pencils must be used, dipped in clear water, to wet the work as fast as the gold can be laid on. The hollows and flats must be gilt first, and be perfectly dry before the other parts can be proceeded with, when the work is all gilt and dry, burnish the parts intended. And should there be any defects which can only arise from the

work not having been carefully wetted, or from grease, those parts must be rubbed off to the whitening, with linen wrapt round the finger. When they are dry, they must be gold-sized, gilt, and burnished as before stated.

Those parts not intended to be burnished are technically called mats, and are to be proceeded with in the following manner:—Reduce a little clear size with hot water, so that when cold it will not set; this being the weakest size used in burnish-gilding, much care should be taken that it be not too strong, or it will show all the joints of the gold. When dry, lay on a coat of this weak size, and when again dry, rub it over with cotton. In double gilding, which is the best style, the matted parts should be again gilt, using water to wet as before; after which, rub them again with cotton, and coat them over again with the same weak size. Then give one coat of clear size, to keep the gold firm, or a coat of or-moulu completes the process. Observe, camels'-hair pencils only are used after the gold is laid on, and care must be taken in sizing the matted parts not to touch those that are burnished, which cannot be improved after the burnishing-stone.

If it be necessary to embellish the frames or work to be gilt in burnished gold, with composition, it may be had in London, soft from the press, and can be put on after the smoothing, with a little hot thick whitening, or weak glue. What is squeezed out round the edges in pressing it close, may be taken off with a brush and cold water: it must then have a coat of thin white, to remove any grease, and be finished like the rest of the work. The composition may also be put on oil-gold work that is not to stand in the weather, but does not require the thin white, and must be finished in the manner of oil-gilding; composition is easily moistened when dry, by wrapping it in a wet linen cloth, for twenty-four hours.

Of oil gilding to stand in the weather.—The object to be gilt, whether metal, stone, or wood, must be coated three times over with a mixture of linseed oil, white-lead, and a small quantity of spirits of turpentine; if it be wood, it should be previously rubbed with glass-paper, or fish-skin. When the last coat is dry, the work should be gold-sized; take any quantity of gold-size, and with a common hogs'-hair brush, kept in water for the purpose, mix it with boiled linseed oil till it is so thin that, when a little of it be laid on the work to be gilt, the white paint before put on, will appear through, though it must not be made so thin as to lose the tinge of the yellow-ochre: then proceed to lay it on sparingly, with fine hogs'-hair brushes, proportioned to the parts of the work. When the gold-size is good, it will dry in twelve hours; if laid on in the evening it will be fit for gilding the next morning. Sometimes in winter, and when the gold-size is fresh made, it will take two or three days; to prevent this, an expedient may be used, unknown to the generality of gilders, i. e. mixing with it a small quantity of japanners' gold-size, which will hasten the drying, but in this instance, when it begins to have the *tack*, hereafter to be explained, it dries very quickly; therefore, great care should be taken to get the gold on as fast as possible.

In order to ascertain its fitness for receiving the gold, the work must be touched with the finger: if it feel somewhat adhesive or clammy, but not so as to be brought off by the finger, it has the *tack*, or in other words, is in a fit state for gilding; but if it be so clammy as to come off on being touched, or have any inclination thereto, it is not sufficiently dry: if it have no sucking quality, it is too dry, and must be sized over again before it can be gilt. In laying on the gold, a tip is used which must be previously rubbed with a little tallow-grease to make it hold, but it must be so little as to make no appearance. When the surface to be gilt, whether round, hollow, or flat, is sufficiently large and plain to contain whole leaves, they may be taken from the book, which must be held in the left hand, by the part that is sewed, the leaves of it turned carefully over, and kept always so steady, that the gold may be undisturbed, and lie perfectly flat. Take the tip in the right hand, touch the leaf of gold about half an inch deep on the side opposite the sewing of the book, both hands must then be moved to the place meant to be gilt. Having laid the edge of the leaf already attached to the tip, upon the work, which is always considered as having the *tack*, it will be caught and held fast by the gold size, and the tip will be left at liberty; the book must be slowly drawn away, followed as it moves by the tip which is now used gently to press the gold close to the work, until the whole leaf is on, which must be repeated until those parts large enough to receive a leaf, are all gilt. This method may be acquired in an hour's practice.

For those parts that are too small for the entire leaf, it is necessary to use a cushion, upon which about half a book of gold may be blown out, one leaf at a time, each one carefully turned until it lies nearly flat, when, by breathing as near as possible on the centre, it will become smooth and even, and must be cut in strips, with a knife used for the purpose, according to the widths of the different members and mouldings, and then laid on with the tip. As the work advances, or when it is gilt all over, it must be pressed close with a bit of unspun cotton, then brushed over with a dry, soft, hogs'-hair brush, one previously used a little in the whitening, will best answer the purpose, in order to clear away any loose particles of the gold leaf. If any defective parts appear, those which cannot be mended by pressing upon them the loose gold just brushed off (which may be done with the brush in hand, or a bit of cotton), must be covered in the following manner:—Cut a leaf of gold into small square pieces, proportioned to the defects, and with the camel's hair pencil slightly moistening the tip of it, by putting it to the lip, place a piece on each faulty part, which must be again pressed with the cotton. The work is then finished unless the faulty parts are too dry to receive the gold; when they must be again gold-sized and gilt, as before directed. In general boys do not acquire the method of using the gold on the cushion in less than three

months, though a person determined to accomplish it may do so in one week.

Picture frames, and other work in oil-gilding that is not to be exposed to the weather, to be well done, must be prepared, as far as smoothing, in the same way as work to be gilt in burnished gold. When smooth, and after being rubbed with glass-paper, it must be coated twice over with size, rather weaker than that used for whitening, that which is stale answers best. The gold size must be laid on as before directed in oil-gilding, and, when the work is gilt, pressed with the cotton, and brushed over. If faults appear, they must be treated thus:—Take a little weak size, as directed in burnish-gilding, coat the work all over when dry, wet each part where a fault appears with clear water, and lay on it a piece of gold, with a camels'-hair pencil, as before described. This is not to be pressed with the cotton, but gently rubbed with it when completely dry, which it will be in half an hour (as will all the coats that are used for gilding, except oil gold size), when give the work another coat of the weak size, then one of clear size which completes the gilding; but the effect is considerably heightened with a coat of or-moulu, such as is used to finish the matted part of the burnished gilding.

To make strong size.—Take a clean saucepan of any size most convenient, fill it nearly with water, when heated as much as the hand can bear, keep putting in cuttings of parchment which best answer the purpose, or glovers' white leather shreds, pressing them down well with the hand, till they are within an inch and a half of the surface of the water; boil them slowly for one hour and a half, and the strong size will be made; pass it through a hair sieve into a pan, and set it aside for use, the same parchment or shreds will again yield the same quantity of size, stale size stinks and is unfit for use. Clear size differs only from the preceding in these particulars, it must be made in smaller quantities; the parchment or shreds must be washed in several waters milk warm, till quite clear. It should boil only fifteen minutes; be passed through a finer sieve, and when reduced care must be taken that the water is perfectly clean.

To make gold size for burnished gilding.—Take one pound of pipe-clay, put it into an earthen pan full of water, when soaked; pour off the water and grind it on a stone with a muller, such as is used by house-painters; now and then sprinkling it with water as it becomes dry. Care must be taken that no dirt or grease be on the stone or muller, and, as it is ground, put it into another pan; then take half an ounce of the best black lead, the eighth of an ounce of mutton suet, pound them together with the muller, and proceed to grind them particularly well, using water as before directed for the pipe-clay: when ground, put them into a smaller pan; grind half an ounce of the best red chalk, and mix the black lead, suet, and chalk, well together on the stone, with a pallet knife, and add to them the clay, until these ingredients are thoroughly mixed; when put them into a covered earthen pan to prevent dust or dirt, to be used as wanted. Ten or twenty pounds may be made at a time. The gold size must be moistened once a month or oftener with clean water to prevent it from getting dry, in which case it would be necessary to grind it again. Care should be taken in selecting these ingredients. The best black lead dust, from the saw of the pencil-makers, is most fit for the purpose. In choosing the clay take that which has the least grit: it may be discovered by putting a little into the mouth, the darkest is generally the best, of which the greatest choice is to be had at the pipe-makers. The softest red chalk, such as is used for drawing, must be chosen, though the gold size may be very well made without any, as its principal use is to heighten the color of the gold when burnished.

Prepared pipe-clay and yellow stone ochre.—The pipe-clay must be chosen and ground, as directed in making gold size; then laid by for use in a covered earthen pan, and occasionally moistened as the gold size. The stone-ochre must be of the best quality, and prepared in the same manner.

To make or-moulu.—In half a pint of clear water, gently boil two ounces of the best gamboge powdered fine, for five minutes, strain it through a linen cloth, and put it into a corked bottle. Take one ounce of saffron, half an ounce of turmeric, and one quarter of an ounce of dragon's blood, boil them in one pint of clear water for fifteen minutes, now and then stirring them from the bottom; strain them also through a linen cloth, and put them into a corked bottle. Put about five or six knobs of starch into a clean half pint earthen pan, make them into a paste, with a teaspoon-full of clean water, using the finger; then add water till the pan is three parts full, boil it for one minute, and it will be clear like clear size: now blow off a scum that will arise from the boiling, and put it immediately into another pan; add four drops of the gamboge liquor, two drops of the repass, stir them round, and the or-moulu is made and fit for use.

The eyes of foliage, &c., in carved work, must be touched with a little of the gamboge liquor, called high-colored or-moulu, unmixed with any thing else.

The or-moulu in general use, though it is by no means the best, is made by dissolving the gamboge in spirits of wine, instead of water, which will give it the appearance of clear varnish: but when dropped into clear size to be substituted in this case for starch, it will be yellow; the quantities of the ingredients are alike in both cases.

Plaster-figures, vases, busts, &c., are gilt both in burnished gold and oil-gilding, by coating them first with very hot weak size, and afterwards four times over with hot clear size: if any holes appear, they must be evenly filled up with putty, made of strong size and whiting; the rest of the process is the same as after *smoothing* in both cases.

To make oil gold-size.—Put as much linseed oil into a broad earthen vessel as will cover the bottom an inch deep, and add to it as much water as will occupy four or five inches; let the vessel containing this, be exposed to the weather for three or four weeks, occasionally stirring it

till the oil appears of the consistency of treacle; it must then be separated from the water, put into a long bottle, or separating funnel used by the chemists, and placed in such a degree of heat as will render it perfectly fluid. The clear part should then be poured off, and it will be fit for use. Take any quantity of the best yellow-stone ochre, and a fourth part of white-lead, mix them with the oil on a flag, using a muller and pallet knife: this mixture is oil gold-size, it must be put into an earthen vessel, and covered with water, to prevent it from skinning. This gold-size is very troublesome to make; it does not arrive at its highest perfection, until six or seven years old.

The *gilding of books and paper* has been stated in our article BOOK-BINDING, to be a distinct occupation. Generally isinglass size, strong gum-water, or glovers'-size, are employed in this art; but, as the gum-water and weaker sizes are apt to run beyond the edge, isinglass, melted with the addition of some common proof spirit of wine, and a sixth part of honey or sugar-candy is preferred; to which must be added a third of bole armeniac well powdered.

The following composition has been also recommended:—Take bole armeniac and sugar-candy well powdered; mix them with the whites of eggs, beaten to an oily consistence; and the cement will be fit for use. In applying any of these cements, the paper, in quires or in books, should be well cut and polished on the edges to be gilt; and well screwed down by a press; in this state it is to be brushed over, first with a little of the cement without the sugar-candy or the bole; and, when that is dry, either with the cement above given, or any other solution of gum or size with the proper proportion of the bole; after which it may be suffered to dry; and then water-polished, by rubbing it with a fine linen rag slightly moistened. It is then fit for receiving the gold, provided it be moistened at that time; and the leaves may be laid on, being cut according to the breadth which they are to cover, and pressed closely down with cotton. When thoroughly dried, it is polished burnished.

Japanners' gilding may be performed on almost any substance, whether metal, wood, leather, or paper; nor is there any preparation necessary, besides making the surface, on which the size is to be laid, smooth, and perfectly clean. Then spread japanners' size, mixed with a due proportion of oil of turpentine and vermilion, with a brush over the work, if the whole surface is to be gilt; or draw with it, by means of a pencil, the proper figure desired, avoiding carefully any other parts; when it is almost dry, so as to be capable, by its clamminess, of receiving the gold, dip a piece of wash-leather, wrapped round the finger, in the gold powder, and rub it lightly over the sized work; or spread the powder with a soft camels'-hair pencil; and with a camels'-hair when the work is dry, brush away the loose powder. If leaf-gold is used, the method of sizing must be the same as for the powders; but care is necessary in laying on, that the size be in a proper state of dryness.

PART II.

OF GILDING BY MEANS OF HEAT.

This is performed both with leaf and with liquid gold; the former after the same manner in which silver leaf is fixed and burnished by the French platers on brass. See PLATE. The metal for this purpose must be previously cleansed and polished: then heated to about the temperature of melted lead, and covered with a double layer of gold leaf; when a blood-stone burnisher, applied gently at first and gradually increasing the pressure, will cause the surfaces of gold and copper to touch each other and adhere. Successive layers, to a third or fourth, are thus laid on and burnished. But this method has been thought tedious, and is subject to the great difficulty of using a sufficient pressure without injuring the evenness of the gilded surface. Gold wire, as it is called, is thus made, however, very commonly and successfully. The copper bar, before it is committed to the wire-drawer, is plated with gold, by having several leaves successively burnished upon it, and, though then subjected to the strong compression that takes place in wire-drawing, the gold and copper are so perfectly united, as to form, in a manner, one substance, and extend together.

Gilding metals with liquid gold is sometimes termed water gilding. We have already described the best mode of preparing the amalgam. Silver is prepared to be thus gilt by soaking it in warm dilute muriatic acid, so that the surface may be rendered perfectly clean; it is next washed in clean water, two or three times changed, in order to free it from the whole of the acid; and being afterwards dried, and made moderately warm, a little gold amalgam, also warm, is evenly spread upon it, and is found immediately to adhere. In applying the amalgam, the operator uses a little knife, or a brush made of brass wire. Giving the work a gentle heat before the fire, he dabs or spreads the amalgam with the brush. The metal is now set over the fire, upon a grate, or in a sort of cage, under which is a pan of charcoal, yielding a heat sufficient for evaporating the mercury; which, rising in fumes, leaves the gold alone adhering to the work. Successive layers of this kind are frequently spread.

When the mercury is so far evaporated that the surface becomes uniformly pale, the metal is rubbed with a scratch-brush composed of fine brass wire, till its surface is made clean and smooth. Then it is covered over with a composition called gilding-wax, and again exposed to the fire till the wax be burnt off. This application is designed to heighten the color, and it is repeated till that effect is produced. The wax is a mixture of common bees'-wax, red ochre, verdigris, and green vitriol, or alum, and promotes the perfect dissipation of the mercury. The work must be now covered over, while heated, with a composition, consisting of equal quantities of nitre, green vitriol, sal ammoniac, and verdigris, finely powdered, and mixed up into a paste with water or urine. The mixture manifests its effects by smoking, and, if the color of the gilding

be not now sufficiently heightened, a succeeding application rarely fails to complete it.

For the gilding of copper, &c., in button making, see BUTTONS.

When iron is to be gilt by amalgamation it is generally first coated with copper; which, with all its combinations with zinc, having less affinity with mercury than silver, must not be expected to adhere to the amalgam so perfectly as that metal, nor to afford at last so even a surface.

The difficulties of well gilding iron, or rather steel, by amalgamation are also great on other accounts.—If simple burnishing down be had recourse to, the heat requisite for this purpose will, in many cases, bring the temper of the steel too low: the parts of the steel to be gilded are often, therefore, pencilled over with nitrate of mercury, by which they are covered with a slightly adhering coating of mercury; then the amalgam is applied, and the gilding finished in the usual way. The objection to this process is, that a considerable heat is required, though inferior to that requisite for burnishing down, and that, even with all possible care, the gilding is apt to scale off. An improvement on this method is previously to trace the figure of the gilding on the steel with a brush charged with a strong solution of sulphated copper, which is made to adhere with considerable firmness by means of the burnisher; and thus the gilding is, in part, performed upon the copper. Another method of gilding upon steel is suggested in the Phil. Mag. xi. p. 144, and seems capable of greatly improving the art. It depends upon the fact, that if sulphuric ether and nitro-muriate of gold are mixed together, the ether will by degrees separate from the acid nearly the whole of the gold, and retain it in solution for some time in nearly a metallic state. Ether, therefore, thus charged with gold, is spread, by means of a pen or fine brush, on the surface of highly polished steel; the ether presently evaporates, leaving the gold behind in close contact with the steel, and the adhesion, as in other cases, is finished by the application of the burnisher. If the expense of the ether is an object, the best oil of turpentine may be used instead.

Dr. Lewis makes the following remarks on gilding by amalgamation: 'There are two principal inconveniences in this business: one, that the workmen are exposed to the fumes of the mercury, and generally, sooner or later, have their health greatly impaired by them; the other, the loss of the mercury; for, though part of it is said to be detained in the cavities made in the chimneys for that purpose, yet the greater part of it is lost. From some trials I have made, it appeared that both these inconveniences, particularly the first and most considerable one, might be, in a good measure, avoided, by means of a furnace of a due construction.'

He suggests, therefore, the communication of a furnace with its chimney under the grate, instead of over the fire: then the ash-pit door, or other apertures beneath the grate, being closed, and the mouth of the furnace left open, the current of air, which otherwise would have entered beneath, enters at the top, and, passing down through the grate to the chimney, carries with it completely both the vapor of the fuel, and the fumes of such matters as are placed upon it.

'If such a furnace is made of strong forged (not milled) iron plate, it will be sufficiently durable. The upper end of the chimney may reach above a foot and a half higher than the level of the fire; over this is to be placed a larger tube, leaving an interval of an inch or more all round between it and the chimney, and reaching to the height of ten or twelve feet; the higher the better. The external air, passing up between the chimney and the outer pipe, prevents the latter from being much heated, so that the mercurial fumes will condense against its sides into running quicksilver, which, falling down to the bottom, is there catched in a hollow rim, formed by turning inwards a portion of the lower part, and conveyed by a pipe at one side into a proper receiver.'

For the gilding of china ware, see PORCELAIN: for gilding on enamel, and glass, ENAMELLING: for gilding letters and figures in books, ILLUMINATING.

Ornaments of brass are varnished in a manner termed gold *lacquering*, to distinguish them from those that are really gilt. When silver leaves, thus varnished, are put upon leather, it is called gilt leather; and many picture-frames have no other than this counterfeit gilding, which may be discovered by washing it with rectified spirits of wine; for the spirit will dissolve the varnish, and leave the silver leaf of its own whiteness. For plain picture frames, thick tin-foil may be used instead of silver; the tin-leaf fixed on with glue is to be burnished, then polished with emery and a fine linen cloth, and afterwards with putty applied in the same manner; being then lacquered over with the varnish five or six times, it looks like gold. See LACQUERING. Inferior or false gildings are also made with thin leaves of copper or brass, called Dutch leaf. In this manner are made most of the kinds of what is called gilt paper.

The following account of *factitious gilding* for chain-bridges, and other works of iron, was communicated by John Robison, Esq. F.R.S.E. to Dr. Brewster's Edinburgh Philosophical Journal of last year (1826):—

'The Moochees and Nuqquashes of India, who are the makers and painters of a variety of objects whose purposes require ability to stand the effects of the weather, use an application in ornamenting their works, which, in appearance, nearly equals gilding, and costs little more than common paint. It appears to me that this application might be useful in some cases in this country, particularly in chain-bridges, and other works where iron of a smooth surface is exposed to the atmosphere. I therefore use the freedom of troubling you with what I recollect on the subject.

'In preparing the factitious gilding in the small way, a quantity of pure tin is melted, and poured into a joint of bamboo, perhaps a foot long, and two or three inches in diameter, close at both ends, except the perforation at which the tin is poured in, which is instantly plugged up. The bamboo is then violently shaken, which, if well managed, soon makes the metal assume th-

form of a very fine gray powder: this being sifted, to separate any coarse particles, is mixed up in thin melted glue, and, if I recollect right, is levigated on a stone with a muller. The result is poured into dishes (commonly cocoa nut-shells) to settle, and the superfluous moisture poured off.

'When to be applied, it should be of the consistence of thin cream, and is laid on with a soft brush, like ordinary paint. When dry, it appears like a coat of common gray water color. This is gone over with an agate-burnisher, and then forms a bright uniform surface of polished tin; a coating of white or colored roghun (oil-varnish) is immediately laid over it, according as it may be intended to imitate silvering or gilding.'

GILDAS, surnamed the Wise, a celebrated British monk, born in Wales in 511. Where he was educated is uncertain. Some say he went over to Ireland; others, that he visited France and Italy. All agree that, after his return to England, he became a most assiduous preacher of the gospel. Du Pin says he founded a monastery at Venetia in Britain. Gildas is the only British author of the sixth century whose works are printed. His History of Britain is valuable on account of its antiquity, and as containing the only information we have concerning the times of which he wrote; though his style is inelegant.

GILDO, a general in Mauritania, who was raised by the emperor Theodosius to the chief command in Africa. When the empire was divided between Arcadius and Honorius, the two sons of the last-mentioned emperor, he was persuaded to acknowledge the authority of Arcadius, the master of the east, although his allegiance was due to Honorius. The Roman senate, upon the revolt, denounced him a public enemy. He was subdued by Stilicho; and the war which terminated in his discomfiture was celebrated by Claudian in his poem de Bello Gildonico. He was seized and thrown into prison, where he saved himself from his impending fate by a voluntary death.

GILEAD, the son of Machir, and grandson of Manasseh. His posterity had their inheritance allotted them in the mountains of Gilead, so named from him.

GILEAD, a descendant of the above mentioned patriarch, and the father of Jephthah.

GILEAD, BALM OF. See AMYRIS.

The mountains of GILEAD were part of that ridge which runs from mount Lebanon southward, on the east of the Holy Land; gave their name to the whole country which lies on the east of the sea of Galilee, and included the mountainous region, called in the New Testament, Trachonitis. Jer. (xxii. 6) seems to say, that Gilead begins from mount Libanus. Jacob, at his return from Mesopotamia, came in six days to the mountains of Gilead (Gen. xxxi. 21. &c.) where this patriarch, with Laban his father-in-law, raised a heap of stones, in memory of their agreement and covenant, and called it Galeed, i. e. 'an heap of witnessess,' and which Laban called Jegar sahadutha. These mountains were covered with trees abounding with gum, called the balm of Gilead, which the Scripture much commends. (Jer. viii. 21, xlvi. 11, li. 8.) The merchants who bought Joseph came from Gilead, and were carrying balm into Egypt, Gen. xxxvii. 25.

GILES (John), D. D. & M. D., a native of St. Albans, who flourished in the thirteenth century, and was the first Englishman who entered among the Dominicans. He was physician in ordinary to Philip IV. of France, and was professor of medicine in the universities of Paris and Montpelier. In his Latin Tracts he is styled Johannes Ægidius.

GILES (St.), the tutelar saint of Edinburgh, was a native of Greece, who flourished in the sixth century, and was descended of an illustrious family. On the death of his parents he gave all his estate to the poor: and travelled into France, where he retired into a wilderness near the conflux of the Rhone with the sea, and continued there three years. Having obtained the reputation of extraordinary sanctity, various miracles were attributed to him; and he founded a monastery in Languedoc, known long after by the name of St. Giles's. In the reign of James II. Mr. Preston of Gorton, whose descendants still possess an estate in the county of Edinburgh, obtained an arm of this saint; which relic he bequeathed to the church of Edinburgh. In gratitude for this donation, the magistrates granted a charter in favor of Mr. Preston's heirs, by which the nearest heir of the name of Preston was entitled to carry it in all processions. They also obliged themselves to found an altar in the church of St. Giles's, and appoint a chaplain for celebrating an annual mass for the soul of Mr. Preston; and likewise, that a tablet containing his arms, and an account of his pious donation, should be put up in the chapel.

GILGAL, in ancient geography, a place between Jericho and Jordan, noted for the first encampment of the Israelites on this side Jordan, about a mile from Jericho. It sometimes also denotes Galilee. Joshua xii. 23.

GILL, *n. s.* Sax. ȝæȝl; Lat. (barb.) *gillo, gello.* A liquid measure; the fourth of a pint.

> They measure their block-tin by the *gill*, which containeth a pint. *Carew.*
>
> Every bottle must be rinsed with wine: some, out of mistaken thrift, will rinse a dozen with the same: change the wine at every second bottle: a *gill* may be enough. *Swift.*

GILL, *n. s.* Not improperly, as Dr. Johnson suggests, from gillian, the Old English way of writing Julian or Juliana. The appellation of a woman in ludicrous language.

> I can, for I will,
> Here at Burley o' th' Hill,
> Give you all your fill,
> Each Jack with his *Gill.*
> *Ben Jonson's Gypsies.*

GILL, *n. s.* } Lat. *chelidonium.* The name
GILL-HOUSE. } of a plant; ground-ivy; malt-liquor medicated with ground-ivy. Gill-house is the place where it is sold.

> Thee shall each alehouse, thee each *gillhouse* mourn,
> And answering ginshops sourer sighs return. *Pope.*

GILL (John), D.D., a Protestant dissenting minister of the Baptist denomination, was born at Kettering, Nov. 23rd, 1697. He was early sent to a grammar-school in the neighbourhood,

where he very soon surpassed boys much his seniors; and after he had left school, though his time was daily devoted to the business of his father, yet he so far improved his leisure hours, as to be able, before he was nineteen, to read all the classical authors that fell in his way. On Nov. 1st, 1716, he made a public profession of his faith before the Baptist church at Kettering, and was baptized by Mr. Thomas Wallis. Of this church Mr. Gill had not been long a member before he was called to the ministry: soon after which, he removed to Higham Ferrers, to pursue his studies under Mr. Davis; but his stay there was soon interrupted by an invitation to London, to preach to the Baptist church at Horslydown, over which he was ordained pastor in 1719, which office he sustained upwards of fifty-one years. Mr. Gill had not been long in London, before rabbinical learning, of which he had acquired considerable knowledge, became an object of his pursuit. To facilitate his progress through the intricacies of this labyrinth, he contracted an acquaintance with one of the most learned Jewish rabbis. He read the Targums, the Talmuds, the Rabbot, their ancient commentaries, the book Zohat, and whatever else of this kind he was able to procure. Of the Oriental languages he made himself complete master: in short, there was no branch of knowledge that could either enlarge or enrich biblical learning, which he did not attempt and attain. In 1748 he published a Commentary on the New Testament, in 3 vols. folio. This work attracted the attention of the University of Aberdeen; and procured for him, without either his solicitation or his knowledge, a diploma, creating him D.D. He died at Camberwell in 1771, aged seventy-three. In 1718 the Dr. had married Mrs. Elizabeth Negus; by whom he had many children, two of whom only survived him. Mrs. Gill died in 1764. His works are, 1. A Commentary on the Old and New Testament, in 9 vols. fol. 2. A Body of Divinity, in 3 vols. 4to. 3. The Cause of God and Truth, 4 vols. 8vo. 4. A Treatise concerning the Prophecies of the Old Testament, respecting the Messiah. 5. A Dissertation on the antiquity of the Hebrew Language, Letters, Vowel Points, and Accents. 6. Sermons on the Canticles, folio; besides a great number of sermons and controversial pieces on different subjects.

GILLS, *n. s.* Goth. *geil, gil*, a fissure; Span. *agulla*; Lat. *gula*. The apertures at each side of a fish's head; the flaps which hang below the beak of a fowl; the flesh under the chin.

The turkeycock hath great and swelling *gills*, and the hen hath less. *Bacon's Natural History.*

In many there is no paleness at all; but contrariwise, redness about the cheeks and *gills*, which is by the sending forth of spirits in an appetite to revenge. *Id.*

The leviathan,
Stretched like a promontory, sleeps or swims,
And seems a moving land, and at his *gills*
Draws in, and at his trunk spouts out a sea.
Milton.

He hath two *gill*-fins; not behind the *gills*, as in most fishes, but before them. *Walton.*

Fishes perform respiration under water by the *gills*. *Ray.*

'Till they, of farther passage quite bereft,
Were in the mesh with *gills* entangled left. *King.*

Like the long bag of flesh hanging down from the *gills* of the people in Piedmont. *Swift.*

GILLS of Fish. See ZOOTOMY.

GILLES (Peter), a learned and enterprising French author, born at Albi in 1490. After studying the Latin and Greek languages, philosophy, natural history, &c., he travelled through France and Italy. In 1533 he dedicated a work to Francis I., wherein he advised that monarch to send learned men to travel into foreign countries for the improvement of science; in consequence of which the king sent Gilles into the Levant. But having received no remittances from France, during his journey, he was at last obliged to enlist, for subsistence, in the army of Soliman II. In another voyage he was taken by a pirate, and carried into Algiers. By the generosity of Cardinal Armagnac he obtained his liberty; after which he went to his benefactor at Rome, where he died in 1555.

GILLORI, an island on the coast of West Florida, divided from Dauphin island by a very narrow channel. Between Gillori and the main land, on the west side of Mobile River, is a chain of small islands, and oyster-shells, through which is a passage of four feet, called Passe au Heron.

GI'LLYFLOWER, *n. s.* Corrupted from Julyflower, or from Fr. *giroflée.*

In July come *gillyflowers* of all varieties. *Bacon.*

Gillyflowers or rather Julyflowers, so called from the month they blow in, may be reduced to these sorts; red and white, purple and white, scarlet and white. *Mortimer's Husbandry.*

Fair is the *gillyflower* of gardens sweet,
Fair is the marygold, for pottage meet.
Gay's Pastorals.

GILLYFLOWER. See CHEIRANTHUS, and DIANTHUS.

GILOLO, or GILLOLO, called also Halamahera, is the largest of the Spice Islands. In its shape, which is very irregular, it most resembles Celebes, being formed of four peninsulas, enclosing three large bays on the east: the interior is occupied by high mountains rising in peaks. It abounds in sago and fruit trees, buffaloes, deer, goats, and wild hogs; and is well inhabited. Towards the south it is said to have nutmeg and clove trees. When captain Forrest visited it, in 1774, its dominion was divided between the kings of Ternate and Tidor, and consequently under the influence of the Dutch; at present, however, it seems to be governed by several independent chiefs. North of Gillolo is the island of Mortay, covered with sago trees, but thinly inhabited. The Moluccas Proper form a chain along the west side of Gillolo. The town of Ossa, on the south side of the bay of that name, is in E. long. 120° 22′, and N. lat. 0° 45′. The imports of the island are iron, cutlery, piece goods, and China ware; the exports spices, edible birds'-nests, tortoise-shell, pearl, seed, and sago.

GILPIN (Bernard), an English divine, was descended from an ancient and honorable family in Westmoreland, and born in 1517. Being

brought up in the Roman Catholic religion, he, for some time, defended it, and, at Oxford, held a disputation with Hooper, afterwards bishop of Worcester, and martyr for the Protestant faith; but, after another disputation with Peter Martyr, began seriously to examine the contested points. Presented with the vicarage of Norton, in Durham, he resigned it, and went abroad to consult eminent professors on both sides; and, after three years' absence, returned a little before the death of Mary I. satisfied in the doctrines of the Reformation. He was kindly received by his uncle Dr. Tonstall, bishop of Durham; who soon after gave him the archdeaconry of Durham, and rectory of Effington. Though the persecution was then at its height, he boldly preached against the vices, errors, and corruptions of the times, especially in the clergy, on which a charge, consisting of thirteen articles, was drawn up against him, and presented in form to the bishop. But Dr. Tonstall dismissed the cause in such a manner as to protect his nephew without endangering himself, and, soon after, presented him to the rich living of Houghton le Spring. He was again accused to the bishop, and again protected; when his enemies laid their complaint before Dr. Bonner, bishop of London, who immediately gave orders to apprehend him. Upon this, Mr. Gilpin prepared for martrydom; and ordering his steward to provide him a long garment, that he might make a decent appearance at the stake, set out for London. He, however, broke his leg on the journey, which protracted his arrival until the queen's death. Being immediately set at liberty, he returned to Houghton, where he was received by his parishioners with the sincerest joy. Upon the deprivation of the popish bishops, he was offered the see of Carlisle, which he declined; and, confining his attention to his rectory, discharged all the duties of his function in the most exemplary manner. He was particularly anxious to improve the minds of the younger part of his flock; pressing them to mix religion with their labors, and, amidst the cares of this life, to have a constant eye upon the next. He attended to every thing which might be of service to his parishioners, and was very assiduous in preventing law-suits. His hall is said to have been often thronged with people, who came to him about their differences. His hospitable manner of living was the admiration of the whole country.—He spent in his family every fortnight forty bushels of corn, twenty bushels of malt, and a whole ox; besides a proportionable quantity of other provisions. Strangers and travellers found a cheerful reception. All were welcome that came: and even their beasts had so much care taken of them, that it was said, 'If a horse was turned loose in any part of the country, it would immediately make its way to the rector of Houghton's.' Every Sunday, from Michaelmas to Easter, was a public day with him. During this season he wished to see all his parishioners and their families. For their reception he had three tables well covered: the first for gentlemen, the second for husbandmen, and the third for day-laborers. This piece of hospitality he never omitted, even when losses or a scarcity of provisions made its continuance rather difficult. Every year he regularly visited the most neglected parishes in Northumberland, Yorkshire, Cheshire, Westmoreland, and Cumberland, preaching in each for two or three days. And wherever he came he visited all the gaols, few in the kingdom having then any appointed minister. In the *debateable land* also, where no man would even travel who could avoid it, Mr. Gilpin never failed to spend some part of every year. The disinterested pains he took among these barbarous people, and the good offices he was always ready to do them, drew from them the warmest and sincerest expressions of gratitude. One instance is related, that shows how greatly he was revered.—By the carelessness of his servants, his horses were one day stolen; and, the news being quickly propagated, every one expressed the highest indignation at the theft. The thief was rejoicing over his prize, when, by the report of the country, he discovered whose horses he had taken. Terrified at what he had done, he instantly came trembling back, confessed the fact, returned the horses, and declared 'he believed the devil would have seized him directly had he carried them off knowing them to have been Mr. Gilpin's.' Although his income was never more than £400 a year, and out of this he had to support his open house and liberal hospitality, yet he founded and endowed a large grammar school, to which he also devoted a great part of his personal attention. One day, returning home, he saw in a field several people crowding together; and judging something more than ordinary had happened, he rode up, and found that one of the horses in a team had suddenly dropped down dead. The owner of it declaring how grievous a loss it would be to him, Mr. Gilpin bade him not be disheartened: 'I'll let you have,' said he, 'that horse of mine,' pointing to his servant's. 'Ah! master,' replied the countryman, 'my pocket will not reach such a beast as that.' 'Come, come,' said Mr. Gilpin, 'take him, take him; and when I demand my money, then thou shalt pay me.' This excellent divine, who deservedly obtained the glorious titles of the Father of the Poor, and the Apostle of the North, died in 1583, in the sixty-sixth year of his age.

GILPIN (Rev. William), M. A., descended from the above, was born at Carlisle in 1724. He received his education at Queen's College, Oxford, where he took his degree of M. A. in 1748. Afterwards he kept a grammar-school at Cheam in Surrey; but at length obtained a prebend in the cathedral of Salisbury, and the vicarage of Boldre, in the New Forest, Hampshire. Here he died, April 5th 1804. His literary reputation is principally founded on his Picturesque Tours. His principal works were The Life of Bernard Gilpin, 1751, 8vo.; The Lives of John Wicliff, &c., 1764, 8vo., which was translated into German; Lectures on the Catechism of the Church of England, 1779, 2 vols. 8vo.; Remarks on Forest Scenery, 2 vols. 8vo.; Observations relative to Picturesque Beauty, made in 1772, on several parts of England, particularly the mountains and lakes of Cumberland and Westmoreland, 2 vols. 8vo; Observations relative to Picturesque Beauty, made in 1776, on several parts of Great Britain,

particularly the Highlands of Scotland, 2 vols. 8vo.; Sermons to a Country Congregation, 2 vols. 8vo.; and Exposition of the New Testament, &c., 4to. 1790, reprinted in 2 vols. 8vo.

GI'LTHEAD, *n. s.* Gilt and head. A sea-fish; a bird.

He blended together the livers of *giltheads*, the brains of pheasants and peacocks, tongues of phenicopters, and the melts of lampres. *Hakewill.*

GILT-HEAD, in ichthyology. See SPARUS.

GI'MCRACK *n. s.* Supposed by Skinner to be ludicrously formed from gin, derived from engine. A slight or trivial mechanism.

For though these *gimcracks* were away,
However, more reduced and plain,
The watch would still a watch remain;
But if the horal orbit ceases,
The whole stands still, or breaks to pieces.
Prior.

What's the meaning of all these trangrams and *gimcracks?* Jumping over my master's hedges, and running your lines cross his grounds? *Arbuthnot.*

GIM'LET, *n. s.* Fr. *gibelet, guimbelet.* A borer with a screw at its point.

The *gimlet* hath a worm at the end of its bit.
Moxon.

GIMMAL, *n. s.* } According to Skinner and
GIMMER, *n. s.* } Ainsworth from Lat. *gemellus.* It seems however, says Johnson, to be rather gradually corrupted from geometry or geometrical. Some little quaint pieces of machinery.

I think by some odd *gimmals* or device
Their arms are set like clocks, still to strike on,
Else they could not hold out so as they do.
Shakspeare.

The holding together of the parts of matter has so confounded me, that I have been prone to conclude with myself, that the *gimmers* of the world hold together not so much by geometry as some natural magick.
More's Divine Dialogues.

GIMP, *n. s.* See GIM. Gimp, in old English, is neat, spruce. A kind of silk twist or lace.

GIN, *n. s.* Corrupted from engine. A trap; a snare; any thing moved with screws, as an engine of torture; a pump worked with rotatory sails. Contracted from Geneva; a spirit drawn from juniper berries.

This same stede shal bere you evermore,
Withouten harme, till ye be then you lest
(Though that ye slepen on his back or reste,)
And turne again with writhing of a pin.
He that it wrought, he coude many a *gin*;
He waited many a constellation,
Or he had don this operation.
Chaucer. The Squires Tale.

——— this false *gin*
Was not made ther; but it was made before.
Id. The Chanones Yemannes Tale.

Typhæus' joints were stretched on a *gin.* *Spenser.*

Which two, through treason and deceitful *gin*,
Hath slain sir Mordant. *Id.*

So strives the woodcock with the *gin*;
So doth the coney struggle in the net.
Shakspeare.

Be it by *gins*, by snares, by subtilty. *Id.*

As the day begins,
With twenty *gins* we will the small birds take,
And pastime make. *Sidney.*

If those, who have but sense, can shun
The engines that have them annoyed;
Little for me had reason done,
If I could not thy *gins* avoid.
Ben Jonson's Forest.

I know thy trains,
Though dearly to my cost, thy *gins* and toils;
No more on me have power, their force is nulled.
Milton.

He made a planetary *gin*,
Which rats would run their own heads in,
And come on purpose to be taken,
Without the' expence of cheese and bacon.
Hudibras.

Keep from flaying, scourge thy skin,
And ankle free from iron *gin.* *Id.*

The delfs would be so flown with waters, it being impossible to make any adits or soughs to drain them, that no *gins* or machines would suffice to lay and keep them dry. *Ray.*

A bituminous plate, alternately yellow and black, formed by water driveling on the outside of the *gin* pump of Mostyn coalpits. *Wood on Fossils.*

GIN, in mechanics, a machine for driving piles, fitted with a windlass and winches at each end, where eight or nine men heave, and round which a rope is reeved that goes over the wheel at the top; one end of this rope is fixed to an iron-monkey, that hooks to a beetle of different weights, according to the piles they are to drive, being from eight to thirteen hundred weight; and when hove up to a cross-piece, near the wheel, it unhooks the monkey, and lets the beetle fall on the upper end of the pile, and forces the same into the ground; then the monkey's own weight overhauls the windlass, in order for its being hooked again to the beetle.

GIN. See GENEVA.

GIN, in geography, a town of China, of the third rank, in Petcheli, ten miles south-east of Chun-te.

GINBALA, a district of Central Africa, formed into an island by two branches of the Niger, issuing from the lake Dibbie, and re-uniting west of Tombuctoo. It is only known to be inhabited by industrious and commercial negroes.

GINGEE, a district and fortress of India, in the Carnatic, situated between the twelfth and thirteenth degrees of northern latitude, and bounded on the east by the sea. The English had factories here in the middle of the seventeenth century, and it is now comprehended in the south division of the Arcot collectorship. The fort stands on a stupendous rock, and is impregnable by any ordinary mode of attack. It is said to have been built by the kings of the Chola dynasty, and was, so early as the year 1442, completely repaired and strengthened by the Naik of Tanjore. It was strengthened by the Mahommedan kings of Bejapore, the Mahrattas, and the Moguls successively, but was taken by surprise from the latter, by the French, in the year 1750, and capitulated to the English in April, 1761. Like other hill forts of India, it is very unhealthy: the French are said to have lost 1200 Europeans by disease, during the ten years they held it, and during peace it is only garrisoned by a small number of native troops.

GINGER, *n. s.* } Ital. *gingero;* Latin
GINGER-BREAD, *n. s.* } *zinzeber.* A pungent aromatic root; and a kind of farinaceous sweetmeat made of dough sweetened with treacle and flavored with ginger.

Gingiber, and grein de Paris,
Canell, and setewale of pris,
And many a spice delitable
To eten whan men rise fro table.
Chaucer. Romaunt of the Rose.

They fet him, first, the swete win,
And mede eke in a maselin,
And real spicerie,
Of *gingerbred* that was full fin,
And licoris and eke comin,
With suger that is trie.
Id. Rime of Sire Thopas.

An' I had but one penny in the world, thou shouldst have it to buy *gingerbread.* *Shakspeare.*

The root of *ginger* is of the tuberous kind, knotty, crooked, and irregular; of a hot, acrid, and pungent taste, though aromatick, and of a very agreeable smell. The Indians eat both the young shoots of the leaves and the roots themselves. *Hill.*

Or wafting *ginger* round the streets to go,
And visit alehouse where ye first did grow. *Pope.*

'Tis a loss you are not here, to partake of three weeks frost, and eat *gingerbread* in a booth by a fire upon the Thames. *Swift.*

Her currants there and gooseberries were spread,
With the enticing gold of *gingerbread.* *King's Cook.*

The flower consists of five leaves, shaped somewhat like those of the iris: these are produced in the head or club, each coming out of a separate leafy scale. The ovary becomes a triangular fruit, having three cells which contain seeds. *Miller.*

To master John, the English maid
A horn-book gives of *gingerbread;*
And that the child may learn the better
As he can name, he eats the letter. *Prior.*

GINGER. See AMOMUM.

GINGERAH, a celebrated fortified island on the western coast of India, in the mouth of a river, on the bank of which is situated the town of Dunda Rajepore. It was one of the stations of the fleet commanded by the Siddees or Abyssinians, who deserted from the service of the kings of Bijapoore, to that of Aurungzebe, in the year 1661, and stood a siege by the Mahratta chief Sevagee (after he had got possession of the town by stratagem), which lasted with little intermission for twenty-five years.

GIN'GERLY, *adv.* I know not whence derived, says Dr. Johnson; Mr. Thomson, from Swed. *gængare*, a smooth pace; an amble. Cautiously; nicely.

What is't that you
Took up so *gingerly?* *Shakspeare.*

GIN'GIVAL, *adj.* Lat. *gingiva.* Belonging to the gums.

Whilst the Italians strive to cut a thread in their pronunciation between D and T, so to sweeten it, they make the occluse appulse, especiallythe *gingival*, softer than we do, giving a little of perviousness.
Holder's Elements of Speech.

GIN'GLE, *v. n.*, *v. a.*, & *n. s.* From Saxon ꝛinchlan; Belg. *tintelen.* To utter or make a shrill or ringing noise; a resounding noise; affectation in the sound of periods.

Full many a deinte hors hadde he in stable;
And when he rode, men mighte his bridel here
Gingling, in a whistling wind, as clere,
And eke as loude as doth the chapell belle.
Chaucer. Prologue to Cant. Tales.

The foot grows black that was with dirt embrowned,
And in thy pocket *gingling* halfpence found. *Gay.*

Once, we confess, beneath the patriot's cloak,
From the cracked bag the dropping guinea spoke
And *gingling* down the backstairs, told the crew,
Old Cato is as great a rogue as you. *Pope's Epistles.*

Her infant grandame's whistle next it grew;
The bells she *gingled*, and the whistle blew. *Pope.*

GINGLYMUS, *n. s.* } Greek γιγγλυμος, a
GINGLYMOID, *adj.* } hinge, and ειδος, the form of. An anatomical word, descriptive of the union of two bones after the manner of a hinge, as the elbow.

The malleus lies along, fixed to the tympanum, and on the other end is joined to the incus by a double or *ginglymoid* joint. *Holder.*

The *ginglymus*, or hinge-joint does not, it is manifest, admit of a ligament of the same kind with that of the ball and socket-joint, but it is always fortified by the species of ligament of which it does admit.
Paley's Theology.

GI'NNET, *n. s.* Lat. *hinnus;* Gr. γίννος. A nag; a mule; a degenerated breed. Hence, according to some, but we believe, erroneously, a Spanish gennet, improperly written for ginnet.

GINORA, in botany, a genus of the monogynia order, and dodecandria class of plants: CAL. cleft into six parts; the petals six: CAPS. unilocular, quadrivalved, colored, and polyspermous. Species one only; a myrtle formed shrub of Cuba.

GINSENG, in botany. See PANAX.

GIOJA, a small town of Naples, in the province of Bari, with 1800 inhabitants. Its houses were overturned by the earthquakes of 1783, and half the town is still in ruins. Fourteen miles S.S.W. of Conversano.

GIORGIEV, a town of Walachia, in European Turkey, partly on the north side of the Danube, and partly on an island in that river. It covers a large extent of ground, and carries on a brisk trade. It was taken in 1771, in the war between the Russians and Turks; and, on the 2nd June of that year, the Turks received a complete defeat here. In 1810 it was again taken by the Russians. It is forty miles south-west of Bucharest, and 235 north-west of Constantinople.

GIORGI (Augustine Anthony), a learned modern ecclesiastic, was born in 1711 at St. Maur, in the diocese of Rimini, and entered, in 1727, the Augustine order, devoting himself particularly to the study of the oriental languages. In 1746 he was invited by pope Benedict XIV. to fill the theological chair of La Sapienza at Rome; he also made him librarian del Angelica. The emperor Francis I. repeatedly invited him to settle at Vienna. In 1761 he published Alphabetum Thibetanum, a work containing many valuable dissertations, and the geography, mythology, history, and antiquities of Thibet. His next publication was Fragmentum Evangelii S. Iohannis Græco-Copto Thebaicum sæculi quarti, &c. &c. His other works consist of Letters, Dissertations on subjects of Oriental Criticism, and Antiquities and Polemical Treatises. He died in 1797.

GIORGIO (St.), or ST. GEORGE, a strong fort and suburb of Mantua, in the department of Mincio. It was taken by the French under

Buonaparte, on the 15th September, 1796, after an obstinate resistance from the Austrians, who lost 2500 men, and twenty pieces of cannon. On the 15th January, 1797, general Provera penetrated thus far with 6000 men to relieve Mantua, but was forced to surrender next day, with his whole troops, provisions, ammunition, &c.

GIORGIONE, an illustrious Venetian painter, born in 1478. He received his first instructions from John Bellino; but, studying afterwards the works of Leonardo da Vinci, he soon surpassed them both, being the first among the Lombards who found out the effects of contrasting strong light and shadows. The most valuable piece of Giorgione in oil is that of Christ carrying his cross, now in the church of San Rovo in Venice. He died of the plague, in 1511.

GIOTTO, an ingenious painter, sculptor, and architect of Florence, born in 1276. He was the disciple of Cimabue; but far superior to his master in the air of his heads, the attitude of his figures, and in the tone of his coloring; though he could not express liveliness in his eyes, tenderness in the flesh, or strength in the muscles of his naked figures. He was principally admired for his works in mosaic; the best of which is over the grand entrance of St. Peter's church at Rome. Alberti says, that, in that piece, the expression of fright and amazement of the disciples, at seeing St. Peter walk upon the water, is so excellent, that each of them exhibits some characteristic sign of his terror. Giotto is said to have been the inventor of crucifix painting, and the story generally told, but which we should hope too horrible to be true, is the following:—

Giotto, intending one day to draw a crucifix, persuaded a poor man to suffer himself to be bound to a cross for an hour, at the end of which he was to be released, and receive a considerable reward for it; but, instead of this, as soon as he had fastened him, he stabbed him dead, and then fell to drawing. When he had finished his picture, he carried it to the pope, who admired it so much, that he was resolved to place it over the altar of his own chapel. Giotto told him, as he liked the copy so well, he would show him the original. 'What do you mean?' said the pope, 'That I will show your holiness the original, from whence I drew this, if you will absolve me from all punishment.' The pope promised this, which Giotto believing, attended him to the place where it was: as soon as they were entered, he drew back a curtain, which hung before the dead man on the cross, and told him what he had done. The pope, troubled at so barbarous an action, retracted his promise, and told Giotto that he should be put to an exemplary death. Giotto, with seeming resignation, only begged leave to finish the piece before he died, which was granted him, and a guard set upon him to prevent his escape. As soon as the picture was delivered into his hands, he took a brush, and, dipping it into a sort of varnish ready for that purpose, daubed the picture all over with it, so that nothing of the crucifix could be seen. His holiness was so incensed, that he threatened to put Giotto to the most cruel death, unless he drew another equal to the former; if so he would not only give him his life, but also an ample reward in money. Giotto, as he had reason, desired this under the pope's signet, that he might not be in danger of a second repeal. This was granted to him; and taking a wet sponge, he now wiped off all the varnish he had daubed on the picture, so that the crucifix appeared the same in all respects as it did before. Upon this, the pope remitted his punishment; and this crucifix is said long to have formed the original, from which the most famous crucifixes in Europe were drawn. He died in 1336, and the city of Florence honored his memory with a statue of marble over his tomb.

GIOVENAZZO, a town in the province of Bari, on the east coast coast of Naples. It has a castle, four churches, four convents, and 5000 inhabitants; and is a bishop's see, united to that of Terlizzi. This town is surrounded by high walls of rustic architecture, behind which rise, in a narrow space, houses and lofty towers with flat tops. Ten miles W. N. W. of Bari.

GI'PSY, *n. s.* Corrupted from Egyptian; see below. A vagabond who pretends to foretell futurity, by palmistry or physiognomy.—Johnson.

Laura, to her lady, was but a kitchen wench; Dido a dowdy; Cleopatra a *gypsy*; Helen and Hero hildings and harlots. *Shakspeare. Romeo and Juliet.*

The widow played the *gypsy*, and so did her confidant too, in pretending to believe her. *L'Estrange.*

In this still labyrinth around her lie
Spells, philters, globes, and spheres of palmestry;
A sigil in his hand the *gipsey* bears,
And in the other a prophetic sieve and shears.
Garth.

A frantick *gipsey* now, the house he haunts,
And in wild phrases speaks dissembled wants. *Prior.*

The butler, though he is sure to lose a knife, a fork, or a spoon every time his fortune is told him, shuts himself up in the pantry with an old *gipsey* for above half an hour. *Addison.*

I, near yon stile, three sallow *gypsies* met;
Upon my hand they cast a poring look,
Bid me beware, and thrice their heads they shook.
Gay.

GIRAFFE. See CERVUS.

GIRALDI (Lilio Gregorio), an ingenious critic, was born at Ferrara in 1479. He was at Rome when it was plundered by the emperor Charles V.; and having thus lost all he had, and being tormented by the gout, he struggled through life with ill fortune and ill health. He wrote, nevertheless, seventeen works, which were collected and published at Basil, in 2 vols. folio, in 1580, and at Leyden in 1696. Casaubon, Thuanus, and other authors of the first rank, have bestowed the highest eulogies on him.

GIRALDI (John Baptist Cutio), an Italian poet of the same family with the preceding, was born in 1504. He was secretary to the duke of Ferrara, and professor of rhetoric at Pavia. He died in 1573. His works, which consist chiefly of tragedies, were collected and published at Venice by his son Celso Giraldi, in 1583. Some rank him among the best tragic writers Italy has produced.

GIRARD (Gabriel), an ingenious French ecclesiastic, was a native of Clermont, and born in 1678. The duties of a canonry, which he possessed, interfering with his studies, he resigned it, in order to be able to pursue them; when the duchess de Berri made him her almoner. He was employed by the French government as Russian and Sclavonian interpreter to the king, and became a member of the academy in 1744. Girard published a treatise on the principles of the French tongue, in two duodecimo volumes; and another on French Synonymes, which has gone through several editions. He died in 1748.

GIRARDON (Francis), a celebrated French architect and sculptor, born at Troyes in 1627. Louis XIV., being informed of his talents, sent him to Rome with a pension of 1000 crowns. At his return into France, he labored for the royal palaces, and the gardens of Versailles and Trianon; where there are many of his works in bronze and in marble, from the designs of Charles le-Brun. The mausoleum of cardinal de Richelieu, in the Sorbonne, and the equestrian statue of Louis XIV. at the Place de Vendome, where the statue and horse are cast in one piece, are reckoned his best performances. He was professor, rector, and chancellor, of the Academy of Painting and Sculpture; and inspector-general of all the works done in sculpture. He died in 1715.

GI'RASOLE, *n. s.* Fr. *girasol.* The herb turnsol; the opal stone.

GIRD, *v. a., v n.* & *n. s.*
GIRD'ER, *n. s.*
GIR'DLE, *n. s.* & *v. a.*
GIR'DLEBELT, *n. s.*
GIR'DLER, *n. s.*
} Saxon ȝyrðan; Goth *gyrda;* Belg. *gardan;* Teut. *gurten, gurtel.* To bind; surround; fasten; invest; dress; cover; encircle; reproach: an architectural term for the largest piece of timber in a floor; that which is used to bind or encircle: a maker of girdles: to smite.

GIRT, *v. a., part. pass.* & *n. s.*
GIRTH, *n. s.* & *v. a.*
} See GIRD.

He throweth on his helme of huge weight;
And *girt* him with his swerde; and in his honde
His mighty spere, as he wos wont to feight,
He shaketh.
Chaucer. Complaint of Mars and Venus.

His here, his berde was like safroun,
That to his *girdle* raught adoun.
Id. Rime of Sire Thopas.

And so befell that in the tos they found,
Thurgh *girt* with many a grevous blody wound,
Two yonge knightes ligging by and by
Bothe in on armes wrought ful richely.
Id. The Knightes Tale.

Men of all sorts take a pride to *gird* at me: the brain of this foolish compounded clay, man, is not able to invent any thing that tends to laughter more than I invent, or is invented on me: I am not only witty in myself, but the cause that wit is in other men.
Shakspeare. Henry IV.

Those sleeping stones,
That as a waist do *girdle* you about.
Shakspeare.

Let me look back upon thee, O thou wall,
That *girdlest* in those wolves! *Id. Timon.*

There will I make thee beds of roses,
With a thousand fragrant posies;
A cap of flowers, and a *girdle,*
Embroidered all with leaves of myrtle.
Shakspeare.

Being moved, he will not spare to *gird* the god.
Id.

Sweet king! the bishop hath a kindly *gird:*
For shame, my lord of Winchester, relent. *Id.*

Stoop then, and set your knee against my foot,
And in reguerdon of that duty done,
I *gird* thee with the valiant sword of York. *Id.*

Lay the gentle babes, *girdling* one another
Within their innocent alabaster arms. *Id.*

Great breezes in great circles, such as are under the *girdle* of the world, do refrigerate. *Bacon.*

This wondred error growth
At which our criticks *gird.* *Drayton.*

Or the saddle turned round, or the *girths* brake;
For low on the ground, woe for his sake,
The law is found. *Ben Jonson's Underwoods.*

He has the glory of his conscience, when he doth well, to set against the checks and *girds* of it when he doth amiss. *Goodman.*

Many conceive there is somewhat amiss until they put on their *girdle.* *Browne's Vulgar Errours.*

On him his mantle, *girdle,* sword and bow,
On him his heart and soul he did bestow.
Cowley.

Here lies old Hobson, death hath broke his *girt;*
And here, alas! hath laid him in the dirt. *Milton.*

That Nyseian isle,
Girt with the river Triton, where old Cham
Hid Amaltha, and her florid son
Young Bacchus, from his stepdame Rhea's eye.
Id.

These, with what skill they had, together sewed,
To *gird* their waist: vain covering, if it hide
Their guilt, and dreaded shame. *Id. Paradise Lost.*

The son appeared,
Girt with omnipotence. *Id.*

Conscience by this means is freed from many fearful *girds* and twinges which the atheist feels.
Tillotson.

Nor did his eyes less longingly behold
The *girdlebelt,* with nails of burnished gold.
Dryden.

Tysiphone there keeps the ward,
Girt in her sanguine gown, by night and day,
Observant of the souls that pass the downward way.
Id.

The *girders* are also to be of the same scantling the summers and ground-plates are of, though the back *girder* need not be so strong as the front *girder.*
Moxon's Mech. Exer.

No, let us rise at once, *gird* on our swords,
And, at the head of our remaining troops,
Attack the foe. *Addison's Cato.*

He's a lusty jolly fellow that lives well, at least three yards in the *girth.* *Id. Freeholder.*

The combatant too late the field declines,
When now the sword is *girded* at his loins. *Prior.*

These mighty *girders* which the fabrick bind,
These ribs robust and vast in order joined.
Blackmore.

The most common way of bandage is by that of the *girt,* which *girt* hath a bolster in the middle, and the ends are tacked firmly together. *Wiseman.*

Cords of the bigness of packthread were fastened to bandages, which the workmen had *girt* round my neck. *Swift.*

In the dread ocean, undulating wide
Beneath the radiant line that *girts* the globe.
Thomson.

Oft the long caravan, which in the chill
Of dewy dawn would slowly round each height,

That stretches to the stony belt which *girds*
Asia, where Kaff looks down upon the Kurds.
Byron.

A poniard decked her *girdle* as the sign
She was a sultan's bride (thank heaven not mine).
Id.

The GIRDLE, cingulus or zona, in antiquity, was a belt or band of leather or wool tied about the reins. It was anciently the custom for bankrupts and other insolvent debtors to put off and surrender their girdle in open court. The reason was, that our ancestors used to carry all their necessary utensils, as purse, keys, &c., tied to the girdle; whence the girdle became a symbol of the estate. History relates, that the widow of Philip I., duke of Burgundy, renounced her right of succession by putting off her girdle upon the duke's tomb. The Romans always wore a girdle to fasten up the tunica when they had occasion to do any thing; and this custom was so general that such as went without girdles, and let their gowns hang loose, were reputed idle dissolute persons.

GIRDLE, MAIDEN'S or VIRGIN'S. It was the custom among the Greeks and Romans for the husband to untie his bride's girdle. Homer, lib. xi. of his Odyssey, calls the girdle *παρθενιην ζονην*, maid's girdle. Festus relates, that it was made of sheep's wool, and adds, that it was tied in the Herculean knot; and that the husband unloosed it as a happy presage of his having as many children as Hercules, who at his death left seventy behind him.

GIRDLE, in mining, is the name used in Cumberland, and some other counties, to denote the uncertain strata, or chance beds of stone and different substances that are met with in some districts; which, instead of occupying the whole space, of the same or nearly an equal thickness throughout, are only local, preserving, however, constantly the same relative situation to the other strata, wherever they appear. Particular strata in the British series are found to be subject to these chance beds, or strata, within their mass; some of which large nodular masses assume a confusedly crystallised structure, and seem to occasion large hills, and even mountainous tracts.

GIRE, *n. s.* Lat. *gyrus*. A circle described by any thing in motion. See GYRE.

GIRGASHITES, or GERGESENES, an ancient people of Canaan, whose habitation was beyond the sea of Tiberias, where we find some relics of their name in the city of Gergesa, upon the lake of Tiberias. The Jewish rabbis inform us that, when Joshua first came into the land of Canaan, the Girgashites resolved rather to forsake their country than submit to the Hebrews, and accordingly retired into Africa. Nevertheless it is certain that a great number of them staid behind, since Joshua, xxiv. 11, informs us that he subdued the Girgashites, and they whom he overcame were certainly on this side Jordan. This name is written Girgashi, Gen. x. 16, xv. 21; in the Greek of Judith, chap. v. 16, Γεργεσαιος; and in Matt. viii. 28, Γεργεσενος. The Gadarenes of the New Testament are thought to have been a remnant of the ancient Girgashites. See GADARENES.

GIRGE, a large town, once the capital, of Upper Egypt. It is situated about a quarter of a mile from the Nile, and is nearly two miles in compass. The architecture is quite modern and mean. Under the government of the Mamelukes a bey appointed by the divan at Cairo resided here, in the capacity of sangiac or governor; but since the last revolution Siont has succeeded Girge as the capital of Upper Egypt. 215 miles south of Cairo.

GIRGENTI, a town of Sicily, which occupies part of the site of the ancient AGRIGENTUM, which see. It stands on the top or hill, the site of the old fort, and has about 12,000 inhabitants. This see was some time since the richest in Sicily, but is miserably neglected, as to all its interests. Among the curiosities belonging to the cathedral is an Etruscan vase of rare size and preservation. There are also some golden pateras of extreme rarity. Girgenti has a harbour, formed by a pier carried out in three sides of an octagon, with a battery at the head: the light-house is erected on the cliffs on shore. The work is strong and neat, but the Sirocco commands it entirely, and drives in great quantities of sand. Ships of burden find it difficult therefore to get in, but the magazines of corn, which it exports, in the rocks along the shore are spacious. Girgenti is seated on the St. Baise, four miles from the sea, and sixty south of Palermo. Long. 13° 24′ E., lat. 37° 28′ N.

GIRL, *n. s.* }
GIRLISH, *adj.* } Casaubon derives this word
GIRLISHLY, *adv.* } from *κόρη* of the same signification; Minsheu from Lat. *garrula*, a prattler, or Ital. *girella*, a weathercock. Junius thinks that it comes from Welsh *herlodes*, from which, says he, harlot is very easily deduced. Skinner imagines that the Saxons, who used ceopl for a man, might also have ceopla for a woman, though no such word is now found. Dr. Hickes derives it from the Icelandic *karlinna*, a woman. To these collections of Dr. Johnson may be added Mr. Thomson's suggestion, that it comes from Goth. *kirla*, diminutive of *karla*, a woman, feminine of *karl*, a man or boor. A young woman, or female child.

In danger hadde he at his owen gise,
The yonge *girles* of his diocise
And knew hir conseil and was of hir dede.
Chaucer. Prologue to the Canterbury Tales.

I will love thee ne'er the less, my *girl*.
Shakspeare.

A weather-beaten lover, but once known,
Is sport for every *girl* to practise on. *Donne*

The soole Amphimachus, to field brought gold to be his wracke,
Proude *girle* like, that doth ever beare her dowre upon her backe. *Chapman.*

True Trojan! whilst this town can *girls* afford
And long as cyder lasts in Hereford,
The *girls* shall always kiss thee though grown old,
And in eternal healths thy name be trouled.
Marvell.

A boy, like thee, would make a kingly line;
But oh! a *girl*, like her, must be divine!
Dryden.

It is pleasant to see the boys and *girls* playing in the streets; but it is ill-favored to see men and women playing there, that should fill up their time with work and business. *Henry. Zech.* viii. 5.

Each *girl*, when pleased with what is taught,
Will have the teacher in her thought. *Swift.*

Chloe of every coxcomb jealous
Admires how *girls* can walk with fellows;
And full of indignation frets
That women should be such coquettes. *Id.*

Tragedy should blush as much to stoop
To the low mimick follies of a farce,
As a grave matron would to dance with *girls*.
Rose.

GIRN, *v. n.* It seems to be a corruption of grin. It is still used in Scotland, and is applied to a crabbed, captious, or peevish person.

GIRONDE, a department of France, containing part of the ci-devant province of Guienne; bounded on the north-east by the department of the Lower Charente, on the east by those of the Dordogne, and Lot and Garonne, on the south by that of Landes, and on the west by the sea. Bourdeaux is the capital. Gironde extends along both sides of the Garonne. Its western division is in a great measure barren, and has the sea on the one side and the river on the other: the eastern part is fertile and well cultivated, yielding annually, it is computed, 800,000 hogsheads of wine. The quantity of corn raised is not equal to the consumption. This department contains six arrondissements, viz. those of Blaye, La Reole, Lesparre, Libourne, Bazas, and Bourdeaux; the last is the central station of the military, the seat of a high court of justice, the residence of the prefet and bishop, and the centre of all the public business. Wine and brandy are exported from that city in large quantities. Gironde, although the climate is tempered by the vicinity of the sea, is warmer than several provinces in the interior of France, which lie in the same latitude on higher ground.

GIRONDE, a river of France, which is formed by the union of the Garonne and Dordogne, three miles north of Bourdeaux, and runs through the above department into the Atlantic, after a course of twenty-seven miles N.N.W.

GIRONDISTS, a political party in France, who flourished in the first stage of the revolution: so named from the department of Gironde, of which their leading members were representatives; called also Brissotines, from Brissot, and Federalists from their wishing for a federal government. See FRANCE.

GIRONNE, or GIRONNY, in heraldry, a coat of arms divided into girons, or triangular figures, meeting in the centre of the shield, and alternately color and metal.

GIR'ROCK, *n. s.* Acus major. A kind of fish.

GISBOROUGH, a town of England, in the North Riding of Yorkshire, on the road from Whitby to Durham, four miles from the mouth of the Tees, where is a bay and a harbour for ships. It had formerly an abbey, and a church which, from its ruins, seems to have been equal to the best cathedrals in England. The soil is fertile, and has a constant verdure, adorned with field flowers almost all the year. There are some mines of iron and alum, which were first discovered in the reign of king James I., and have been since very much improved. Sir Paul Pindar, who first farmed them, paid rents to the king £12,300, to the earl Musgrave £1640, and to Sir William Penniman £600, and had 800 men by sea and land in constant pay; yet he was a considerable gainer, as there was then scarcely any other to be had, and the price was £26 a ton; but, as there are now several other alum works in this country, the works here have for some years lain neglected. Market day Monday. Gisborough lies eight miles to the north-east of Stokesley.

GISE, *v. a.* When the owner feeds his ground with cattle which he takes in to graze.

GI'SLE, among the English Saxons, signifies a pledge: thus, Fredgisle is a pledge of peace; Gislebert an illustrious pledge, like the Greek Homerus.

GISLEN (Auger), lord of Busbec, a man illustrious on account of his embassies, was born at Commines in 1522; and educated at the universities of Louvain, Paris, Venice, Bologna, and Padua. He was engaged in several important negociations, and particularly was twice sent ambassador by the king of the Romans to the emperor Soliman. He collected inscriptions, examined natural history, and, in his second journey to Constantinople, carried with him a painter, that he might be able to communicate to the curious the figures of the plants and animals that were little known in the west. He wrote a Treatise on the State of the Ottoman Empire, and a Relation of his two Journeys to Turkey, which are much esteemed. He died in 1592.

GISORS, a town of Upper Normandy, in the department of the Eure, having manufactures of woollens, leather, and cottons. Inhabitants 3500. Seventeen miles east of Andelys, and thirty-two north-east of Evreux.

GITH, *n. s.* Nigella. An herb called also small fennel flower.

GIUDECA, or ZUECCA, an island in the Lagunes, about a mile from Venice, consisting properly of six small islands joined together, and containing a number of elegant houses and gardens, six churches, and a monastery. Its name is said to be derived from the number of Jews once residing here.

GIVE, *v. a.* & *v. n.* } Sax. ȝifan; Gr. γε, or
GIV'ER, *n. s.* } *yea*, prefixed to Goth.
GIV'EN, *part.* } and Swed. *fa*, Sax. fon, to possess.—Thomson. To bestow without price or reward; to communicate; to yield. This word is used in a great variety of senses. A donor, distributor, &c. The radical idea is transmitting from one person to another, either freely or otherwise: it is frequently used with other words, which fix its definite meaning; as, away; back; forth; over; out; up; into; &c.: it is used also in reference to locality, as, to give place.

My fadir *geueth* you verey breed fro heuene.
Wiclif. Jon. VI.

Al thing that the fadir *gyuetn* to me, schal come to me.
Id.

He wos an esy man to *give* penance,
Ther as he wiste to han a good pitance;
For uto a poure ordre for to *give*,
Is signe that a man is wel yshrive;
For if he gave,—he dorste make avant,
He wiste that a man wos repentant;

For many a man so hard is of his herte,
He may not wepe although him sore smerte;
Therfore, in stede of weping and praieres,
Men mote *give* silver to the poure freres.
Chaucer. Prologue to Cant. Tales.

With all thy hart, with all thy soule and mind,
Thou must Him love, and his beheasts embrace;
All other loves, with which the world doth blind
Weake fancies, and stirre up affections base,
Thou must renounce and utterly displace,
Then *give* thy selfe unto Him full and free,
That full and freely gave Himselfe to thee.
Spenser's Hymnes.

If they will speak to the purpose, they must *give over*, and stand upon such particulars only as they can shew we have either added or abrogated, otherwise than we ought, in the matter of church polity.
Hooker.

Lessons being free from some inconveniences, whereunto sermons are more subject, they may in this respect no less take than in others they must *give the hand*, which betokeneth pre-eminence. *Id.*

The duty of uniformity throughout all churches, in all manner of indifferent ceremonies, will be very hard, and therefore best to *give* it *over*. *Id.*

Neither hath Christ, through union of both natures, incurred the damage of either, lest, by being born a man, we should think he hath *given over* to be God, or that, because he continued God, therefore he cannot be man also. *Id.*

This opinion abated the fear of death in them which were so resolved, and *gave* them courage to all adventures. *Id.*

The fathers *give* it *out* for a rule, that whatsoever Christ is said in Scripture to have received, the same we ought to apply only to the manhood of Christ.
Id.

Let novelty therefore in this *give over* endless contradictions, and let ancient customs prevail. *Id.*

Abdemelech, as one weary of the world, *gave over* all, and betook himself to a solitary life, and became a monk. *Knolles.*

The Rhodians, seeing their enemies turn their backs, *gave* a great shout in derision of them. *Id.*

Huniades, the scourge of the Turks, was dead long before; so was also Mathias: after whom succeeded others, *given* all to pleasure and ease. *Id. History.*

Fear him not, Cæsar, he's not dangerous:
He is a noble Roman, and well *given*. *Shakspeare.*

The applause and approbation I *give* to both your speeches. *Id. Troilus and Cressida.*

It is *given out*, that, sleeping in my orchard,
A serpent stung me. So the whole ear of Denmark
Is, by a forged process of my death,
Rankly abused. *Id. Hamlet.*

One that *gives out* himself prince Florizel,
Son of Prolixenes, with his princess. *Shakspeare.*

Never *give* her *o'er*,
For scorn at first makes after love the more. *Id.*

His name is Falstaff: if that man should be lewdly *given*, he deceives me; for, Harry, I see virtue in his looks. *Id.*

If you shall marry,
You *give away* this hand, and that is mine;
You *give away* heaven's vows, and those are mine:
You *give away* myself, which is known mine. *Id.*

If you did know to whom I *gave* the ring,
If you did know for whom I *gave* the ring,
And would conceive for what I *gave* the ring,
And how unwillingly I left the ring,
You would abate the strength of your displeasure.
Id.

It hath been *given out* by an hypocritical thief, who was the first master of my ship, that I carried with me out of England twenty-two thousand pieces of twenty-two shillings per piece. *Raleigh.*

The state of human actions is so variable, that to try things oft, and never to *give over*, doth wonders.
Bacon's Natural History.

Some things are harder when they come from the fire, and afterwards *give* again, and grow soft; as the crust of bread, bisket, sweetmeats, and salt. *Id.*

Demetrius, king of Macedon, had a petition offered him divers times by an old woman, and still answered he had no leisure; whereupon the woman said aloud, Why then *give over* to be king. *Bacon.*

Though he was *given* to pleasure, yet he was likewise desirous of glory. *Id. Henry VII.*

Julius Cæsar laid asleep Pompey's preparations, by a fame that he cunningly *gave out* how Cæsar's own soldiers loved him not. *Bacon.*

In oranges the ripping of the rind *giveth out* their smell more. *Id.*

Finding ourselves in the midst of the greatest wilderness of waters, without victual, we *gave* ourselves for lost men, and prepared for death. *Id.*

Philip, Alexander's father, gave sentence against a prisoner at a time he was drowsy, and seemed to *give* small attention. The prisoner, after sentence was pronounced, said, I appeal: the king, somewhat stirred, said, To whom do you appeal? The prisoner answered, from Philip, when he *gave* no ear, to Philip, when he shall *give* ear. *Id. Apophthegms.*

The charge was *given* with so well governed fury, that the left corner of the Scots battalion was enforced to *give in*. *Hayward.*

Soon after it was *given forth*, and believed by many, that the king was dead. *Id.*

Private respects, with him, *gave way* to the common good. *Carew.*

We are the earth; and they,
Like moles within us, heave and cast about:
And 'till they foot and clutch their prey,
They never cool, much less *give out*. *Herbert.*

Only a sweet and virtuous soul,
Like seasoned timber never *gives*;
But though the whole world turn to coal,
Then chiefly lives. *Id*

Who say, I care not, those I *give* for lost;
And to instruct them will not quit the cost. *Id.*

Up and down he traverses his ground,
Then nimbly shifts a thrust, then lends a wound;
Now back he *gives*, then rushes on amain.
Daniel's Civil War.

Let us *give* ourselves wholly *up* to Christ in heart and desire. *Taylor's Rule of Holy Living.*

Shall we kindle all this flame
Only to put it out again?
And must we now *give o'er*,
And only end where we begun?
In vain this mischief we have done,
If we can do no more. *Denham.*

Virtue *given* for lost,
Deprest and overthrown, as seemed;
Like that self-begotten bird
From out her ashy womb now teemed.
Milton's Agonistes.

Since no deep within her gulph can hold
Immortal vigour, though oppressed and fallen,
I *give* not Heaven for lost. *Id. Paradise Lost.*

Well we may afford
Our *givers* their own gifts. *Id.*

So Satan, whom repulse upon repulse
Met ever, and to shameful silence brought
Yet *gives* not *o'er*, though desperate of success.
Milton.

By thee how fairly is the *giver* now
Repaid? But gratitude in thee is lost
Long since. *Milton's Paradise Regained.*

This instance *gives* the impossibility of an eternal existence in any thing essentially alterable or corruptible. *Hale.*

Where few the numbers, choice is there less hard; *Give* us this court and rule without a guard. *Marvell.*

But worst of all to *give* her *over*,
'Till she's as desperate to recover. *Hudibras.*

The cause for which we fought and swore
So boldly, shall we now *give o'er?* *Id.*

The more he got, the more he shewed that he *gave away* to his new mistress, when he betrayed his promises to the former. *Sidney.*

Zelmane, govern and direct me; for I am wholly *given over* unto thee. *Id.*

If any be *given up* to believe lyes, some must be first *given up* to tell them. *Stillingfleet.*

He is much *given* to contemplation, and the viewing of this theatre of the world. *More against Atheism.*

Unless it is kept in a hot house, it will so *give* again, that it will be little better than raw malt. *Mortimer.*

Before you carry your large cocks in, open them once, and spread them: hay is apt to *give* in the cock. *Id.*

Nature *gives* us many children and friends, to take them away; but takes none away to *give* them us again. *Temple.*

They who *gave* themselves to warlike action and enterprises, went immediately to the place of Odin. *Id.*

Besides, he is too much *given* to horseplay in his raillery; and comes to battle like a dictator from the plough. *Dryden.*

I have some business of importance with her; but her husband is so horribly *given* to be jealous. *Id. Spanish Fryar.*

What can I refuse to a man so charitably *given*? *Dryden.*

Scarce had he spoken when the cloud *gave way*;
The mists flew upwards, and dissolved in day. *Id.*

I have not lived since first I heard the news;
The gift the guilty *giver* doth accuse. *Id.*

Ours *gives himself* for gone; you've watched your time,
He fights this day unarmed, without his rhyme. *Id.*

A woman had a hen that laid every day an egg; she fancied that upon a larger allowance this hen might lay twice a day: but the hen grew fat, and *gave* quite *over* laying. *L'Estrange.*

Men are *given* to this licentious humour of scoffing at personal blemishes and defects. *Id.*

The punishment would be kept from being too much, if we *gave off* as soon as we perceived that it reaches the mind. *Locke.*

He would *give* his nuts for a piece of metal, and exchange his sheep for shells, or wool for a sparkling pebble. *Id.*

When the Babylonians had *given* themselves *over* to all manner of vice, it was time for the Lord, who had set up that empire, to pull it down. *Grew.*

Give yourselves *up* to some hours of leisure. *Watts.*

As we desire to *give* no offence ourselves, so neither shall we take any at the difference of judgment in others. *Burnet.*

For a man to *give* his name to Christianity in those days, was to list himself a martyr. *South.*

As the hinder feet of the horse stuck to the mountain, while the body reared up in the air, the poet with great difficulty kept himself from sliding off his bac in so much that the people *gave* him for gone. *Addison's Guardian*

Theodosius made a private vow never to inqui after Constantia, whom he looked upon as *given aw* to his rival, upon the day on which their marriage w to have been solemnized. *Addison*

Our minds naturally *give* themselves *up* to every version which they are much accustomed to; a we always find that play, when followed with assidui engrosses the whole woman. *I*

This is a geography particular to the medalists; t poets, however, have sometimes *given in to* it, and f nish us with very good lights for the explication of i *Id. on Medal*

The abbess, finding that the physicians had *gi* her *over*, told her that Theodosius was just gone bef her, and had sent her his benediction. *Addiso*

Constantia accused herself for having so tamely *gi* an ear to the proposal. *Id. Spectato*

Whence came you here, O friend, and whitl bound?
All *gave* you lost on far Cyclopean ground. *Garth.*

I *gave* his wise proposal way;
Nay, urged him to go on: the shallow fraud
Will ruin him. *Rowe's Ambitious Stepmother.*

Have the physicians *given up* all their hopes?
Cannot they add a few days to a monarch? *Rowe.*

Forbear contending louts, *give* o'er your strains,
An oaken staff each merits for his pains. *Gay.*

Where yet was ever found a mother,
Who'd *give* her booby for another? *Id. Fables.*

Whatsoever we employ in charitable uses, during our lives, is *given away* from ourselves; what we bequeath at our death, is given from others only, as our nearest relations. *Atterbury.*

Their vices perhaps *give back* all those advantages which their victories procured. *Id.*

He has not *given* Luther fairer play. *Id.*

He may be brought to *give up* the clearest evidence. *Id.*

These people are obliged to demand peace, and *give up* to the Romans all their possessions in Sicily. *Arbuthnot.*

Is any sick? The man of Ross relieves;
Prescribes, attends, the med'cine makes and *gives*. *Pope.*

Constant at church and 'Change; his gains were sure,
His *givings* rare, save farthings to the poor. *Id.*

Both gifts destructive to the *givers* prove;
Alike both lovers fall by those they love. *Id.*

This consideration may induce a translator to *give in to* those general phrases, which have attained a veneration in our language from being used in the Old Testament. *Id.*

A good poet no sooner communicates his works, but it is imagined he is a vain young creature *given up* to the ambition of fame. *Id.*

Yet this false comfort never *gives* him o'er,
That, whilst he creeps, his vigorous thoughts can soar. *Id.*

Let the first honest discoverer *give* the word about, that Wood's half-pence have been offered, and caution the poor people not to receive them. *Swift.*

Madam, I always believed you so stout,
That for twenty denials you would not *give out*. *Id.*

Not one foretells I shall recover;
But all agree to *give* me *over*. *Id.*

GIVES, *n. s.* Fetters or shackles for the feet.

GIVET, a strong town in the department of the Ardennes, France, the chief place of a canton. It originally consisted of two villages, one on each side of the Meuse, which Louis XIV. caused to be fortified and united, under the direction of M. Vauban. It is now a place of considerable strength, and has the fortress of Charlemont on an adjoining hill. Givet was one of the frontier towns put into the possession of the allies by the treaty of Paris in 1815. Inhabitants 3500. Fifteen miles north-east of Rocroy, and twenty-four north of Mezieres.

GIULIANO, San, or Monte San Giuliano, the ancient Eryx, a considerable town in the Val de Mazzara, Sicily. It stands on the summit of a high hill, and is said to be very healthy. Few vestiges of antiquity remain, but the women are remarked for their clear complexions. The town contains fifteen churches, nine convents, an hospital, a Monte di Pieta, and 10,000 inhabitants. It is sometimes called Trapani di Monte, and the mountain Monte di Trapani. Three miles north-east of Trapani.

GIULEMO, a mountain of the Cisalpine republic, in the department of Benaco, and ci-devant Veronese. This mountain, with that of Maniva, and the valley of Sabbia, contain twenty-six parishes and 13,000 citizens; who carry on cloth manufactures, and iron forges and foundries. Cattle are also bred in great numbers.

GIZEH, a town of Egypt, on the left bank of the Nile, opposite Cairo. It is a considerable place, and was fortified by Ishmael Bey. It has been supposed, but on no solid ground, that the ancient Memphis stood in the place where Gizeh now stands: which is in the immediate neighbourhood of the pyramids of Cheops and Cephrenes. It is three miles south-west of Cairo, and in 1801 was taken from the French by the British.

GIZ'ZARD, *n. s.* Fr. *gesier;* Lat. *gigeria.* It is sometimes called gizzern. The strong musculous stomach of a fowl. It is proverbially used for apprehension or conception of mind: as, he frets his gizzard; he harasses his imagination.

But that which does them greatest harm,
Their spiritual *gizzards* are too warm;
Which puts the overheated sots
In fevers still. *Hudibras.*

Fowls have two ventricles, and pick up stones to convey them into their second ventricle, the *gizzerne.* *More.*

They nestle near the throne,
By their high crops and corny *gizzards* known. *Dryden.*

Satisfaction and restitution lie so cursedly hard upon the *gizzards* of our publicans, that their blood is not half so dear to them as the treasure in their coffers. *L'Estrange.*

In birds there is no mastication in the mouth; but, in such as are not carnivorous, it is immediately swallowed into the crop, a kind of ante-stomach, where it is moistened by some proper juice from the glandules distilling in there, thence transferred into the *gizzard*, or musculous stomach. *Ray.*

When our fowls are abundantly supplied with meat, they soon fill their craw: but it does not immediately pass thence into the *gizzard*; it always enters in very small quantities, in proportion to the progress of trituration. *Paley's Theology.*

GLA'BRITY, *n. s.* From Lat. *glaber.* Smoothness; baldness.

GLA'CIAL, *adj.*
GLA'CIATE, *v. n.*
GLACIA'TION, *n. s.*
GLA'CIOUS, *adj.*
GLA'CIERS, *n. s.*
} Fr. *glacer;* Lat. *glacies.* Ice; the art of freezing; icy or cold; mountains covered with ice.

Ice is plain upon the surface of water, but round in hail, which is also a *glaciation,* and figured in its guttulous descent from the air. *Browne's Vulgar Errours.*

Although exhaled and placed in cold conservatories, it will crystallize and shoot into *glacious* bodies. *Id.*

GLACIERS, a name given to some very extensive fields of ice among the Alps. Mr. archdeacon Coxe says, that these mountains, in general, are composed of many parallel chains, the highest of which occupy the centre, and the others gradually diminish as we recede thence. The central chain appears covered with pointed rocks; all parts of which, that are not absolutely perpendicular, lie hid under perpetual snow and ice. On each side of this ridge are fertile and cultivated valleys, interspersed with numerous villages, and watered by numerous streams. The elevated peaks of the central chain are covered with snow; but their declivities, excepting those that are extremely steep, have all a covering of ice as well as snow; the intermediate parts being filled with vast fields of ice, terminating in the cultivated valleys. The same phenomena, though on a smaller scale, occur in those chains that are at a distance from the principal one: in those which are most remote, no ice, and scarcely any snow, is observed, unless upon some of the most elevated summits; and the mountains, diminishing in height and ruggedness, appear covered with verdure, until at last they terminate in small hills and plains. Thus the glaciers may be divided into two sorts; the first occupying the deep valleys in the bosom of the Alps, called Ice Valleys; the second covering the declivities and sides of the mountains. These are called by Mr. Coxe the Upper and Lower Glaciers.

The Lower Glaciers are by far the most considerable; some of them extending several leagues in length. They do not communicate with each other, as has been generally supposed, few of them being parallel to the central chain; but, stretching mostly in a transverse direction, are bordered at the higher extremity by inaccessible rocks, and at the lower extend into the cultivated valleys. The thickness of the ice varies in different parts. In the glacier de Bois, which extends more than fifteen miles in length, and upwards of three in breadth, M. Saussure found it generally from eighty to 100 feet; but he was credibly informed that in some places it was not less than 600 feet, and even more. These vast masses of ice usually rest on an inclined plane; where, being pushed forward by their own weight, and but weakly supported by the rugged rocks beneath them, they are intersected by large crevices, and have an appearance of walls, pyramids, &c., according to the position of the

eye in viewing them. In those parts, however, where they lie upon even ground, or such as have only a gentle inclination, the surface of the ice is nearly uniform, the crevices being few and narrow, and the glacier being crossed by travellers on foot without any difficulty. The surface of the ice is rough and granulated, so that people may walk upon it, excepting such places as have a steep descent. It is opaque, full of small bubbles about the size of a pea, very porous, and greatly resembles a mixture of snow and water congealed. A vast quantity of stones and earth falls down from the mountains upon the glaciers, and are by them thrown off on each side according to the descent of the ice. The place on which these rest is more hard and elevated than the rest of the ice, and is very difficult to walk upon; the earth is likewise laid upon them in such regular heaps, that it appears to have been done by art. This collection of earth and stones is termed by the natives the moraine. Mr. Coxe, who visited the Glacier de Bois, informs us, that the appearance of it at a distance was so tremendous that it seemed impracticable to cross it. Numerous and broad chasms intersected it in every direction; but, entering upon it, the company found that courage and activity were only required to accomplish the task. They had large nails in their shoes, and spiked sticks, which on this occasion were found to be particularly serviceable. Having passed the moraine, and descended upon the glacier itself, they found the ice softened by a warm wind which rendered it less slippery than usual. Having walked across it for about a quarter of an hour, they came again to the moraine, along which they continued their journey for half an hour, and then entered upon the great body of the glacier. 'Here,' says Mr. Coxe, 'it was curious to observe the numerous little rills produced by the collection of drops occasioned by the thawing of the ice on the upper part of the glacier: these little rills hollow out small channels, and, torrent-like, precipitate themselves into the chasms with a violent noise, increasing the body of waters formed by the melting of the interior surface, and finding an outlet under the immense arch of ice in the valley of Chamounie, from which the Averon rushes.' As our traveller proceeded on his journey, he was surprised by the noise of a large fragment of rock which had detached itself from one of the highest needles, and bounded from one precipice to another with great rapidity; but before it reached the plain it was almost reduced to dust. 'Having proceeded about an hour,' says he, 'we were astonished with a view more magnificent than imagination can conceive: hitherto the glaciers had scarcely answered my expectations, but now they far surpassed them. Nature had clad herself in all her terrors. Before us was a valley of ice twenty miles in extent, bounded by a circular glacier of pure unbroken snow, named Takul, which leads directly to the foot of Mount Blanc, and is surrounded by large conical rocks, terminating in sharp points like the towers of an ancient fortification; to the right rose a range of magnificent peaks, their intervals filled with glaciers; and, far above the rest, the magnificent summit of Mont Blanc, his highest point obscured with clouds. He appeared of such immense magnitude, that, at his presence, the circumjacent mountains, however gigantic, seemed to shrink before him, and hide their diminished heads. In half an hour we arrived at the moraine, which forms a boundary of the valley, crossed it, and proceeded upon a body of ice about three quarters of a mile broad. Here the ice was more even and free from chasms than in the great valley. We then passed a second moraine, and beyond that another mass of ice to a third moraine: descending thence we came upon the last ridge of ice, broader considerably than the two former, and full of large chasms: it is separated from the rock only by a very narrow moraine. These moraines contain great quantities of crystal.' They continued to ascend the valley of ice, the scene constantly increasing in magnificence and horror: and, having walked about five miles on the ice, they arrived at last at the foot of the eminence named couvercle, where they were obliged to quit the ice. The doing this was extremely dangerous, and at one place very tremendous. It was a bulging smooth rock, with a precipice of considerable depth terminated by a vast crevice in the ice, which seemed to stop all further progress: a small hollow in the middle, however, afforded room for one foot; and, having fixed this, they sprung over to the other side, being helped and directed by the guides who went over first. Having gained the top of the couvercle, they had a view of three of the glaciers, viz. that of Talefre to the left, l'Echaut in front, and Takul on the right; all uniting in that great one called the Glacier de Bois. The Couvercle itself is a most extraordinary rock, having the appearance of a large irregular building with many sides; the substance of which is granite. Having reached the top, they were surprised with a thunderstorm, from which they took shelter under an impending rock. The view was exceedingly magnificent; the glaciers appearing like a rugged expanse of frozen sea bounded by gigantic rocks, and terminated by Mont Blanc. A single rock appeared of a triangular figure covered with Alpine plants; and which, by reason of its contrast with the rugged and snowy mountains in the neighbourhood, has obtained the name of the Garden. During this, as well as other excursions among the Alps, Mr. Coxe had occasion to observe that the color of the sky was of a much deeper blue than in the lower regions.

The Upper Glaciers may be subdivided into those which cover the summits, and those which extend along the sides of the Alps. Those on the very summit, however, though they have the appearance of ice, are not so in reality, but consist entirely of snow hardened by the extreme cold. M. Saussure found that which covered the top of Mont Blanc to be penetrable, though with difficulty, by a stick; but below this hard crust was a soft snow without coherence. The sides are covered with a mixture of ice and snow; by reason of the superior power of the summer sun to dissolve the snow, which afterwards congeals into hard ice.

Mr. Coxe agrees with M. Gruner in opinion,

that the glaciers are produced by the continual dissolution of the snow in summer, and its congelation by the succeeding frosts. Hence, on the summits of the mountains, where the sun has very little power, the glacier is soft, and contains no ice: as we descend the mountains, the consistence becomes firmer, because there is a considerable mixture of snow-water, the congelation of which augments the hardness; and in the valleys the glacier is hardest of all, because the portion of water is there much superior to that of the snow. Hence it seems plain, that the glaciers derive their origin from the melting of the snow on the upper parts of the mountains, and the congelation of the water as it advances: and to this cause M. Saussure adds the quantity of snow which often rolls down into the valleys and congeals along with the water.

Another question concerning the glaciers naturally occurs, namely, Whether they are to be considered as in a state of increase or diminution? Mr. Coxe is of opinion, that they occasionally increase and decrease: in proof of which he adduces the following observations. 'The borders of the glacier of Montanvert are mostly skirted with trees: towards its base a vast arch of ice rises to nearly 100 feet in height; under which the river Averon rushes with considerable force, and in a large body of water. As we approached the ice, we passed through a wood of firs: those trees which stand at a little distance from the arch are about eighty feet high, and are undoubtedly of a very great age. Between these and the glacier the trees are of a later growth; as is evident from their texture and inferior size Others, still smaller, have been overturned and enveloped in the ice: there seems to be a kind of regular gradation in the age of these several trees, from the largest which are standing to the smallest that lie prostrate. Hence, our author concludes, that the glacier once extended as far as the row of small firs; but that, upon its gradual dissolution, a number of trees shot up on the spot it had occupied; since which time the ice has again advanced, and overturned the last grown trees before they had attained to any considerable height. This he thinks also confirmed by the following facts: large stones of granite are usually found at a small distance from the extremities of the glacier. 'These stones have certainly fallen from the mountains upon the ice; have been carried on in its progress; and have tumbled into the plain upon the dissolution or sinking of the ice which supported them. These stones, which the natives call moraine, form a kind of border towards the foot of the valley of ice, and have been pushed forward by the glacier in its advances: they extend even to the place occupied by the larger pines.' In opposition to those who maintain that there is a constant accumulation of ice and snow in the Alpine regions, our author makes the following remarks: 1. Between the years 1776 and 1785 the glacier of Grindelevald had diminished to such a degree, that the spot which its extremity occupied in the former year was at least 400 paces from that occupied by it in the latter. 2. In 1785 the Murailles de Glace, which in 1776 he had described as forming the border of the glacier of Bosson, no longer existed; and young trees had shot up in the parts which were then covered by the glacier of Montanvert. Still, however, it may be urged, that these changes only take place in the valleys, where the power of the sun is considerable; and that from thence we cannot form any adequate idea of what passes in the more elevated regions, where in all probability more snow falls than can be dissolved. In support of this opinion, it is alleged that the cold produced by the mass of ice already formed must have augmented it still more; and that, within the memory of the present generation, many places have been covered with ice, which were not so before. To these arguments, however, Mr. Coxe replies, that the causes which diminish the ice in the upper regions are no less powerful than the cold which tends to augment it. These are, 1. Rain or sleet; which, falling upon the lower glaciers, thaw the ice, increase the rills on its surface, excavate channels, and in many ways tend to diminish its quantity. 2. Evaporation, which takes place even from the surface of the ice itself, acts still more powerfully; and its action is not confined to any particular season. 3. The falling of the snow and ice; both that which comes gradually from the clouds, and which descends from the mountains in great masses, called by the natives avalanches. When these last fall down into milder regions, though sometimes they may resist the influence of the sun and form ice valleys, yet they generally dissolve. They are most common in the upper glaciers, though sometimes they descend upon the lower, while the gradual descent of snow from the clouds, which chiefly takes place in the lower, contributes very much to lessen the mass. 4. All the lower glaciers or valleys of ice rest on an inclined plane, are hollow, and undermined by torrents which are constantly flowing from the upper glaciers, as well as from their own lowermost surface. Their foundation being thus constantly diminishing, the lower glaciers are carried imperceptibly forward into the cultivated fields, where an end is necessarily put to their progress by the heat of the sun. Hence we may see the reason of that strange phenomenon taken notice of by Mr. Coxe, that with one hand he could touch ripe corn, and with the other solid ice. This descent of the glacier is demonstrable from the trees overturned by it, and the moraine always observed at the bottom of the lower glaciers. 5. The heat of the sun is an evident cause of the diminution of the glaciers. To this Mr. Coxe adds another cause less generally known, viz. the warm winds which blow by night as well as by day, both in the upper and lower glaciers. 'These warm winds,' says he, 'are during summer so common in those parts, that I never crossed a glacier without feeling in some particular positions a warmth similar to the air of a hot-bath.' 6. Another cause is the mean temperature of the earth itself; which, where it is not exposed to the piercing cold of the atmosphere, is found to have a temperature always above the freezing point. As the vast thickness of the superincumbent ice, therefore, is in the present case abundantly sufficient to prevent the access of the atmosphere, it is plain that the lower surface of it must, by being in contact with the earth, continually decay.

With regard to the other argument drawn from the known increase of the ice in some places, Mr. Coxe does not deny it; but insists that there is no continual increase of the whole, but that if it increases in some places it diminishes in others; and his opinion in this respect was confirmed by those who frequent the mountains.

We have seen no better account than Mr. Coxe's of these magnificent phenomena: but for more modern observations of travellers amongst them, see ALPS; BLANC, MONT; and EUROPE, p. 673, Vol. VIII.

GLA'CIS, *n. s.* Fr. In fortification, a sloping bank. It is more especially taken for that which rangeth from the parapet of the covered way to the level on the side of the field.

GLACIS, TERREIN, or Esplanade, a slope made of earth, and generally covered with sod or grass, which runs from the covert way of a fortified place, towards the country. See FORTIFICATION.

GLAD, *adj.* & *v. a.*
GLAD'DEN, *v. a.*
GLAD'DER, *n. s.*
GLAD'FULNESS, *n. s.*
GLAD'LY, *adv.*
GLAD'NESS, *n. s.*
GLAD'SOME, *adj.*
GLAD'SOMELY, *adv.*
GLAD'SOMENESS, *n. s.*

Sax. ȝlæd; Goth., Dan. and Swed. *glad*; Teut. *glatte*; from Lat. *lætus*, joyful; or, says Minsheu, à Greek αγλαος, *clarus, pulcher*. Cheerful; gay, expressive of delight and pleasure: its compounds are nearly obsolete.

Abraham youre fadir *gladide* to se my day: and he saygh and joyede. *Wiclif. Jon.* viii.

O soden wo! that ever art successour,
To worldly blis; spreint is with bitternesse
The' ende of the joye of our worldly labour:
Wo occupieth the fyn of our *gladnesse*.
Herken this conseil for thy sikernesse,
Upon thy *glade* day, have in thy minde
The unwary wo of harm that cometh behinde.
Chaucer. The Man of Lawes Tale.

The turtil dove said: Welcom, welcom, May!
Gladsom and light to lovers that ben trewe.
Id. The Court of Love.

—Art thou like an asse unto the harpe
That heareth soun, whan men the stringes ply;
But in his mind, of that no melodie
Maie sinken him to *gladin*; for that he
So dull is in his bestialite.
Id. Troilus and Creseide.

And there him rests in riotous suffisance
Of all his *gladfulness*, and kingly joyance.
Spenser.

The highest angels to and fro descend,
From highest heaven in *gladsome* company.
Id. Faerie Queene.

I am *glad* to see your worship.
Shakspeare.

He hath an uncle in Messia will be very much *glad* of it. *Id.*

For his particular I'll receive him *gladly*;
But not one follower. *Id. King Lear.*

He saw rich nectar-thaws release the rigour
Of the' icy North; from frost-bound Atlas' hands
His adamantine fetters fall: green vigour
Gladding the Scythian rocks, and Lybian sands.
Crashaw.

Then first adorned
With their bright luminaries, that set and rose
Glad Evening and *glad* Morn crowned the fourth day.
Milton.

Glad we returned up to the coasts of light. *Id.*

The wily adder blithe and *glad*. *Id.*

Thither they
Hasted with *glad* precipitance. *Id.*

He *glad*
Of her attention, gained with serpent tongue,
His fraudulent temptation thus began. *Id.*

Her conversation
More *glad* to me than to a miser money is.
Sidney.

It *glads* me
To see so many virtues thus united,
To restore justice and dethrone oppression.
Otway.

The *gladsome* ghosts in circling troops attend,
And with unwearied eyes behold their friend.
Dryden.

The gaping wound gushed out a crimson flood;
The Trojan, *glad with* sight of hostile blood,
His faulchion drew. *Id. Æneid.*

If he be my enemy, let him triumph; if he be my friend, he will be *glad of* my repentance. *Dryden.*

Thou *gladder* of the mount of Cytheron,
Have pity, goddess. *Id.*

By such degrees the spreading *gladness* grew
In every heart, which fear had froze before:
The standing streets with so much joy they view,
That with less grief the perished they deplore. *Id.*

I would be *glad* to learn from those who pronounce that the human soul always thinks, how they know it. *Locke.*

Oh, he was all made up of love and charms!
Delight of every eye! When he appeared,
A secret pleasure *gladdened* all that saw him.
Addison.

Each morn they waked me with a sprightly lay;
Of opening heaven they sung and *gladsome* day.
Prior.

Hark! a *glad* voice the lonely desert cheers:
Prepare the way, a God, a God appears! *Pope.*

Each drinks the juice that *glads* the heart of man. *Id.*

Glad of a quarrel strait I clap the door. *Id.*

If justice Philips' costive head
Some frigid rhymes disburses,
They shall like Persian tales be read,
And *glad* both babes and nurses. *Swift.*

You are going to set us right; and 'tis an advantage every body will *gladly* see you engross the glory of. *Blount to Pope.*

Liberal not lavish is kind nature's hand,
Nor was perfection made for man below,
Yet all her schemes with nicest art are planned,
Good counteracting ill and *gladness* woe.
Beattie.

A populous solitude of bees and birds,
And fairy formed and many-coloured things,
Who worship him with notes more sweet than words,
And innocently open their *glad* wings,
Fearless and full of life. *Byron. Childe Harold.*

GLADE, *n. s.* From ȝlopan to be hot, or to shine; whence the Danish *glod*, and the obsolete English *gleed*, a red hot coal. A lawn or opening in a wood.—Lucus. It is taken for an avenue through a wood, whether open or shaded, and has therefore epithets of opposite meaning.

So flamed his eyen, with rage and rancorous ire;
But far within, as in a hollow *glade*,
Those glaring lamps were set, that made a dreadful shade. *Spenser.*

Oft in glimmering bowers and *glades*
He met her, and in secret shades
Of woody Ida's inmost grove
Whilst yet there was no fear of Jove. *Milton.*

O might I here
In solitude live savage, in some *glade*
Obscured, where highest woods, impenetrable
To star or sun-light, spread their umbrage broad,
And brown as evening. *Id. Paradise Lost.*

For noonday's heat are closer arbours made,
And for fresh evening air the opener *glade*.
Drydcn.

By the heroes armed shades
Glittering through the gloomy *glades*;
By the youths that died for love,
Wandering in the myrtle grove,
Restore, restore Eurydice to life!
Oh! take the husband, or restore the wife!
Pope.

There interspersed in lawns and opening *glades*;
Thin trees arise that shun each other's shades. *Id.*

Who now, alas! shall teach my humble vein,
That never yet durst peep from covert *glade*;
But softly learnt for fear to sigh and plain,
And vent his griefs to silent myrtle's shade?
Fletcher's Purple Island.

She smiled, arrayed
With all the charms of sunshine, stream, and *glade*,
New drest and blooming as a bridal maid. *Harte.*

GLA'DEN, *n. s.* } Fr. *gladiateur*; Lat. *gla-*
GLA'DER, *n. s.* } *dius*. The first two are
GLADIA'TOR, *n. s.* } a general name given to plants that rise with a broad blade like sedge; swordgrass. The latter is a sword-player, or prize-fighter.

Here Amphitrite sails through myrtle bowers,
There *gladiators* fight or die in flowers. *Pope.*

GLADIATORS, in antiquity, were persons who fought, generally in the arena at Rome, for the entertainment of the people. They were usually slaves, and fought out of necessity; though sometimes freemen adopted the profession, like our prize-fighters, for a livelihood. The Romans borrowed this cruel diversion from the Asiatics; some suppose out of policy, the frequent combats of gladiators tending to accustom the people to despise dangers and death.

From the earliest times with which we have any acquaintance in profane history, it had been the custom to sacrifice captives, or prisoners of war, to the manes of the great men who had died in the engagement; thus Achilles, in the Iliad, lib. xxiii., sacrifices twelve young Trojans to the manes of Patroclus; and in Virgil, lib. xi. ver. 81, Æneas sends captives to Evander, to be sacrificed at the funeral of his son Pallas. In course of time they came also to sacrifice slaves at the funerals of all persons of condition: this was even esteemed a necessary part of the ceremony; but, as it would have appeared barbarous to have massacred them like beasts, they were appointed to fight with each other, and endeavoured to save their own lives by killing their adversary. This seemed somewhat less inhuman, because there was a possibility of avoiding death, by an exertion of skill and courage. This occasioned the profession of gladiator to become an art; hence arose masters of the art, and men learned to fight and exercise it. These masters, whom the Latins called Lanistæ, bought young slaves to be trained up to this cruel trade, whom they afterwards sold to such as had occasion to present the people with so horrible a show. These exhibitions were at first performed near the sepulchre of the deceased, or about the funeral pile; but were afterwards removed to the circus and amphitheatres, and became ordinary amusements. The first show of gladiators, called munus gladiatorum, was exhibited at Rome, according to Valerius Maximus, by M. and D. Brutus, upon the death of their father, A. U. C. 490. On this occasion there were probably only three pairs of gladiators. In 537, the three sons of M. Æmilius Lepidus the augur, who had been three times consul, entertained the people with the cruel pleasure of seeing twenty-two gladiators fight in the forum. In 547 Scipio Africanus diverted his army at New Carthage with a show of gladiators; which he exhibited in honor of his father and uncle, who had begun the reduction of Spain. In process of time the Romans became so fond of these bloody entertainments, that not only the heir of any great and rich citizen lately deceased, but all the principal magistrates, presented the people with shows of this nature, to acquire popularity. The ædiles, prætors, consuls, and, above all, the candidates for offices, made their court to the people, by entertaining them frequently with these fights; and the priests were sometimes the exhibitors of the barbarous shows. Suetonius mentions the ludi pontificales, August. cap. 44, and Pliny, the ludi sacerdotales, Epist. lib. vii. As for the emperors, to ingratiate themselves with the populace, they humored them with combats of gladiators almost upon all occasions; and, as these increased, the number of combatants increased likewise. Accordingly, Julius Cæsar, in his ædileship, diverted the people with 320 couple. Even Titus Vespasian exhibited a show of gladiators, wild beasts, and representations of sea-fights, which lasted 100 days; and Trajan continued a solemnity of this nature for 123 days; during which time he brought out 1000 pairs of gladiators. Before this time, under the republic, the number of gladiators was so great, that when the conspiracy of Catiline broke out, the senate ordered them to be dispersed into the garrisons and secured, lest they should have joined the disaffected party.

These sports were become so common, and their consequences in a variety of respects so dangerous, that Cicero preferred a law, that no person should exibit a show of gladiators within two years before he appeared candidate for any office. Julius Cæsar ordered that only a certain number of men of this profession should be in Rome at a time. Augustus decreed that only two shows of gladiators should be presented in a year, and never above sixty couple of combatants in a show; and Tiberius provided, by an order of senate, that no person should have the privilege of gratifying the people with such a solemnity, unless he was worth 400,000 sesterces. They were also considerably regulated by Nerva. Claudius restrained them to certain occasions; but he soon after annulled his decree, and private persons began to exhibit them at pleasure as usual. Some carried the brutal satisfaction so far as to have them at their ordinary feasts. And not slaves only, but other persons, would hire themselves to this infamous office. The master of the gladiators made them all first swear that they would fight to death; and, if they failed,

they were put to death, either by fire, or swords, clubs, whips, or the like. It was a crime for the wretches to complain when they were wounded, or to ask for death, or seek to avoid it when overcome; but it was usual for the emperor to grant them life when they gave no signs of fear, but waited the fatal stroke with courage and intrepidity. Augustus even decreed that it should always be granted them. From slaves and freedmen the inhuman sport at length spread to people of rank and condition; so that Augustus was obliged to issue a public edict that none of the senatorian order should become gladiators; and soon after he laid the same restraint on the knights: nevertheless, Nero is said to have brought upwards of 400 senators, and 600 Roman knights, upon the arena; though Lipsius takes both these numbers to be falsified, and reduces them to forty senators and sixty knights: yet Domitian, that other monster of cruelty, refined upon Nero, exhibiting combats of women in the night-time. Constantine the Great is said to have first prohibited the combats of gladiators in the east. At least he forbad those who were condemned to death for their crimes to be employed; there being an order still extant to the præfectus prætorii, rather to send them to work in the mines, dated at Berytus, in Phœnicia, the 1st of October 325. Honorius forbad them at Rome on occasion of the death of Telemachus, who, coming out of the east into Rome at the time of one of these spectacles, went down into the arena, and used all his endeavours to prevent the gladiators from continuing the sport; upon which the spectators of that carnage, fired with anger, stoned him to death. The practice was not, however, totally abolished in the west, before Theodoric, king of the Ostrogoths, put a stop to it entirely, A.D. 500.

Some time before the day of combat, the person who presented the people with the shows gave them notice thereof by programmas or bills, containing the names of the gladiators, and the marks whereby they were to be distinguished; for each had his several badge; which was most commonly a peacock's feather, as appears from the scholiast of Juvenal on the 158th verse of the 3d satire, and Turnebus Advers. lib. ii. cap. 8. They also gave notice how long the shows would last, and how many couples of gladiators there were; and, it appears, from the 52nd verse of the 7th satire of the 2nd book of Horace, that they sometimes made representations of these things in painting, as is practised among us by those who have any thing to show at fairs. The day being come, they began the entertainment by bringing two kinds of weapons; the first were staves or wooden files, called rudes; and the second were effective weapons, as swords, poniards, &c. The first were called arma lusoria, or exercitoria; the second decretoria, as being given by decree or sentence of the prætor, or of him at whose expense the spectacle was exhibited. They began to fence or skirmish with the first, which was to be the prelude to the battle; and, from these, when well warmed, at the sound of the trumpets they advanced to the second, with which they fought naked. Then they were said vertere arma. The terms of striking were petere et repetere; of avoiding a blow, exire; and, when one of the combatants received a remarkable wound, his adversary or the people cried out, habet, or hoc habet. The first part of the engagement was called ventilare, præludere; and the second, dimicare ad certum, or versis armis pugnare: and some authors think, with much probability, that it is to these two kinds of combat that St. Paul alludes in the passage, 1 Cor. ix. 26, 27. 'I fight, not as one that beateth the air; but I keep my body under, and bring it into subjection.' If the vanquished surrendered his arms, it was not in the victor's power to grant him life. The people during the time of the republic, and the prince or people during the time of the empire, were alone empowered to grant it. The reward of the conqueror was a branch of palmtree, and a sum of money, probably collected among the spectators: sometimes they gave him his congé, or dismissed him by putting one of the wooden files or rudes in his hand; and sometimes they even gave him his freedom, putting the pileus on his head. The sign or indication, whereby the spectators showed that they granted the favor, was premere pollicem, which M. Dacier takes to be a clenching of the fingers of both hands between one another, and so holding the two thumbs upright close together; and, when they would have the combat finished, and the vanquished slain, verterunt pollicem, they bent back the thumb; which we learn from Juvenal, Sat. iii. ver. 36. The gladiators challenged or defied each other, by showing the little finger; and, by extending this, or some other, during the combat, they owned themselves vanquished, and begged mercy from the people: 'Victi ostensam digiti veniam a populo postulabant,' says the old scholiast on Persius.

There were various kinds of gladiators, distinguished by their weapons, manner, and time of fighting, &c.; as, the andabatæ, mentioned under ANDABATÆ: the catervarii, who always fought in troops or companies, number against number; or, according to others, who fought promiscuously, without any certain order: the dimachæ, who fought armed with two poniards or swords, or with sword and dagger: the essedarii, who fought in cars: the fiscales, or Cæsariani, who belonged to the emperor's company; and who, being more robust and dexterous than the rest, were frequently called for; and therefore named also postulatitii. Several other kinds are mentioned in the ancient authors.

GLADIATORS', WAR (bellum Gladiatorium, or Spartacum) called also the servile war, was a war which the Romans sustained about A.U.C. 680. Spartacus, Crinus, and Oenomaus, having escaped with other gladiators to the number of seventy-four, out of the place where they had been kept at Capua, gathered together a body of slaves, put themselves at their head, rendered themselves masters of all Campania, and gained several victories over the Roman prætors. At length they were defeated in 682, at the extremity of Italy; having, in vain, attempted to pass over into Sicily. This war proved very formidable to the Romans. Cassius was not able to finish it: Pompey the Great was forced to be sent as general.

GLADIATOR, THE DYING, a most valuable

monument of ancient sculpture, long preserved in the palace of Chigi, but carried to Paris with the Laocoon, &c., in 1796. This gladiator, after having received the mortal stroke, appears particularly careful ut procumbat honeste, 'that he might fall honorably. He is seated in a reclining posture on the ground, and seems to have just strength sufficient to support himself on his right arm; and in his expiring moments he does not abandon himself to grief and dejection; but is solicitous to maintain that firmness of aspect and attitude which the gladiators valued themselves on preserving in this last scene of distress. He betrays no tokens of fear by his countenance, nor sheds one tear. 'Quis mediocris gladiator ingemuit, quis vultum mutavit unquam? Quis non modo stetit, verum etiam decubuit turpiter?' says Cicero, in that part of his Tusculan where he is describing the astonishing firmness of those persons. He appears, notwithstanding his remaining strength, to have but a few moments to live. Thus the ancients knew how to animate marble, and to give it almost every expression of life.

GLADIOLUS, corn-flag, a genus of the monogynia order, and triandria class of plants; natural order sixth, ensatæ: cor. sexpartite, and ringent; the stamina ascending and bending upwards. There are fifty-two species, of which the best known is, G. communis, the common gladiolus. It has a round, compressed, tuberous root; long sword-shaped leaves; an erect flower-stalk, two or three feet high; the top garnished with several pretty large flowers of a red or white color, having each six petals. They appear in May and June, and are succeeded by plenty of seed in August. The plants are very hardy, and will thrive in any soil or situation. They are propagated by offsets from the roots.

GLAIRE, *n. s.* & *v. a.* Sax. glæꝑ, amber; Dan. *glar*, glass; Fr. *glaire;* Lat. *glarea.* The white of an egg; to smear with the white of an egg; a kind of halbert.

Unslekked lime, chalk, and *gleire* of an eg.
Chaucer. The Chanones Yemaun's Tale.

GLAMORGANSHIRE, a beautiful county of South Wales, received its name from a contraction of the Welsh words Gwald Morgan, or the county of Morgan, and is supposed to have been so called from a prince of this part of the country said to have been killed 800 years before the birth of our Saviour; but some writers derive its name from the word mor, which in Welsh signifies the sea, this being a maritime county. It is bounded on the south and part of the west by the Bristol Channel; on the north-west by Caermarthenshire; on the north by Brecknockshire; and on the east by Monmouthshire; extending forty-eight miles in length from east to west, twenty-seven in breadth from north to south, and 116 in circumference.

The air in the southern part of Glamorganshire towards the sea is temperate and healthful; but the northern part, which is mountainous, is cold and piercing, full of thick woods, extremely barren, and thin of inhabitants; but the mountains serve to feed herds of cattle, and send forth streams which add greatly to the fertility of the other parts of the county. Indeed, between the mountains there are some fertile valleys, which afford good pasturage; for the level parts, being more capable of cultivation, produce remarkably sweet grass, and pretty large crops of corn. The principal rivers are the Rhymney, the Taff, the Ogmore, the Avon, the Neath, and the Tavey. The Lower Taff rises in the mountains which separate Glamorganshire from Brecknockshire, and traversing a wild district towards the south soon becomes immersed in the coal and copper works with which the vicinage of Swansea abounds, and attended by parallel canals passes through their sulphureous regions to the busy town of Swansea, where it falls into the Glamorganshire Bog. Were it not for the prevalence of these works, and the atmosphere they create, the valley formed by this river would be pleasant, as the hills which encircle it are bold, and not unadorned with wood. An arid sterility, however, marks many of the heights near the copper works, disrobing them of their verdure, and contrasts disagreeably the black soil and aspect of the collieries, combining with them to involve the whole surrounding country in volumes of smoke. The Neath is a much more considerable river than the Tavey, finding its origin in the same range of mountains, but somewhat to the eastward: descending from these, with great rapidity, it forms at last a deep valley, through which it pursues its course southward, inclining a little to the west to Neath, where it meets the tide, and after several curves in the marsh below that town, falls into the centre of the Swansea. The rapid increase of this stream from a cataract to a rivulet, and from a rivulet to a river, as it descends from its mountainous source, is much admired. At Pont-Neath-Vaughan it receives several tributary streams, each of which is adorned with highly romantic glens, intermixed with rock and fringed with brush-wood. It then pervades a valley abounding in rich woods and overhanging groves, which, as it widens, presents a canal and its attendant works parallel with the course of the river. The lawns, plantations, and fine buildings of the Gnoll appear next, proudly overlooking the numerous forges and collieries of Neath; a broad marsh succeeds, after which the entrance of the Neath into the fine bay of Glamorgan is graced with the groves encircling the beautiful territory of Briton Ferry, and the more distant summit of the high hill of Margam, covered with oaks from its base to its summit. The Avon, the Ogmore, and the Ewenny, are three small rivers pervading the vale of Glamorgan, and each falling successively into the great bay formed by the coast of that county. Neither of these is attended with any peculiar features, except the collieries and copper-works which encircle the exit of the Avon, a little below the fine park of Margan, and the town of Bridgend, on the Ogmore, which rises in a small lake among the mountains, and is soon joined by the Llanvy. The Ewenny meets these united streams at last, and each river pursues a line but little deviating from the south in its short course. The Taaffe boasts the same mountainous origin with the rest of the Glamorganshire rivers, but is generally larger and more beautiful than the

others; it inclines throughout to the south-east, forming in its passage a great variety of curves. The more inconsiderable rivers of this county are the Elag, the Hepsey, the Melta, the Trawgath, the Dulishe, and the Turch.

Glamorganshire has but one mineral spring, i. e. at Swansea. This has an acid styptic taste like alum, though the predominant salt is a martial vitriol. It turns blue with vinegar, and will not curdle with milk. A gallon of this water yields forty grains of sediment of a brown color, which will ferment with spirit of hartshorn and oil of tartar. At Newton, north-west of the mouth of the Ogmore, is a very remarkable spring about eighteen feet in circumference, the water of which sinks at high tide nearly to the bottom, and at the ebbing of the sea it rises almost to the brim. In order to account for this phenomenon, it has been supposed that at high water the air in the veins of the spring, by its being pent up, not being at liberty to circulate, the water is prevented from issuing out; but when the sea retires from the shore, and frees these natural aqueducts from these obstructions, the water is at liberty to issue through them.

Another curiosity of this county is in a promontory near Penrice, the most westerly point of Glamorganshire, called Warmshead-point; it runs about a mile into the sea, and at half-flood the isthmus, which joins it to the main land, is overflown, so that it is rendered a small island. Near the extremity of this point is a cleft or crevice in the ground, into which if dust or sand be thrown, it will be blown back again into the air; and if a person applies his ear to the crevice, he will plainly hear a deep noise like the blowing of a large pair of bellows. These phenomena are attributed to the undulatory motion of the sea under the arched and rocky hollow of the promontory, which occasions an alternate inspiration and expiration of the air through the cleft.

The roads over the mountains are excessively steep, and strewed with stones of various sizes, detached from the rocks by the winter rains. The lower road from Caerdiff through the county is good. Thence to Cowbridge and Margan the distance is divided by mile-stones. There is no where perhaps south of the Tweed a greater air of rudeness than among the inhabitants of the Glamorganshire mountains; being constantly employed in the coal, iron, and copper works, they are almost naked, excessively dirty, and even their long straight hair hanging about their tawny faces. The women outdo the men in hard labor. Their huts are like their stone fences, confusedly piled up, and locked together without cement or earth.

The various rivers rising in the northern parts of this county, expanding so as to form a middle district tolerably fit for cultivation, are well clothed with wood, terminating in the great level or vale of Glamorgan. This tract, extending along the sea-coast to eight or ten miles inland, is rich in corn and pasture, and well stored with treasures of coals, lead, iron, and limestone. The sea-shores are delightful, having a level sand beach and romantic cliffs mostly of marle. Castles are planted thickly along the coast and in Gowerland; the former to secure the Norman, the latter the English conquests. Gower is the peninsulated extremity of the county beyond Swansea. In 1099 Henry Beaumont came into this district against the sons of Caradoc ap Jestin, and won from them large portions of their territories. He built the towns of Swansea, Lloughor, Llanridian, and Penrice; the last was erected where Rhys the son of Caradoc ap Jestin was slain. In this manner he fortified himself, exercising intolerable oppressions.

The inhabitants of this peninsula were probably the same people, whether Flemings or English, as those who had settled in Pembrokeshire. The language from a very remote period was English, and their communication with the Welsh continues reserved and jealous. A striking resemblance exists between Gower and the hundred of Castle Martin in Pembrokeshire, in its peninsular form, its exposure, soil, climate, sea-coasts, and inhabitants. In each of these districts, the soil is chiefly upon the same kind of limestone, similar in quality and fertility, backed to the north by rich veins of coal. The buildings indeed are more neat and clean than those of Castle Martin, which exceeds Gower in the number of gentlemen's seats and well-built churches. There are more orchards and more wood in Gower. The west part of each is nearly destitute of wood. Loughor Bay is greatly inferior to Milford Haven, as a harbour, from admitting by a wider entrance a raging sea, especially during the prevalence of south-west winds. In both counties barley-bread is chiefly eaten, though they have wheat of the best quality.

The sea cliffs of both districts are grand, frequented by elegugs and some uncommon birds; and the respective coasts abound with plenty of fish, particularly oysters, lobsters, birt, turbot, and soles. The houses are more generally whitewashed in Gower. In Castle Martin there are many mud-built houses; in Gower none. The women wear whittles in both counties. In Gower most of the lands are held by that kind of copyhold tenure called Borough English. They are mostly, if not all, freeholders in Castle Martin. This county is stated to contain 422,400 acres of land, of which 305,000 are in a state of cultivation, viz. 43,000 as arable, and 262,000 in pasturage. It is divided into ten hundreds, viz. Caerphilly, Cowbridge, Danis Powis, Kibbor, Llangewelach, Miskin, Neath, Newcastle, Ogmore, and Swansea; comprising 118 parishes, one city (Landaff), one borough (Cardiff), and four other market-towns (Cowbridge, Neath, Penrice, and Swansea).

The northern and middle parts of Glamorganshire comprise a portion of that great mineral tract which begins at Pontypool in Monmouthshire, and terminates at St. Bride's Bay in Pembrokeshire. The exterior stratum or boundary is, as we have said, a bed of limestone, within which are contained all the strata of the other minerals in the following order:—On the north side of a line, drawn from east to west through the middle of the district, all the strata rise gradually to the north, and on the south side of the same line they rise to the south till they come to the surface, except at the east end, where they rise to the eastward. In the centre of this

ract the iron and coal mines in the vicinity of Myrthr-Tydvil are both the richest and most abundant. The whole of the coal is at the depth of 440 feet beneath the surface of the ground, which is composed of argillaceous strata, with occasional veins of hard rock. The coal is about fifty-two feet deep, the thickness of the veins varying from twelve inches to nine feet in thickness. The iron-stone lies under the stone for about 108 feet, and is separated by argillaceous earth and stone into eighteen different veins, each about four feet ten inches in thickness. When this ore is smelted, it yields iron to the amount of three-tenths of the weight of the ore. The largest and most famous are those near the recently built town of Myrthr-Tydvil, which, within a few years, has grown up from an obscure village to the most populous place in the whole principality of Wales, and contained, in 1811, 11,000 inhabitants. There are seventeen blast-furnaces near this place, each of which can make from fifty to 100 tons of iron weekly. The most extensive of the works, that of Cyfartha, belonging to Messrs. Crawshay and company, produce annually 11,000 tons of pig-iron, and 12,000 tons of bar-iron.

The manufactory of what are called tin plates, is next in importance: the cheapness of iron and coal causing the tin of Cornwall to be sent here, and spread over those iron plates, which are afterwards to be found in all parts of the world. Thus also the copper ore from Cornwall, from North Wales, and from Ireland, is attracted to Glamorganshire by the cheapness of coal; and is smelted in the extensiv works of Aberavon, Neath, and Swansea, whence it is forwarded by water-carriage to the places where it receives its final destination or consumption. There are also some extensive manufactories of earthenware, salt, soap, and woollen cloths in different parts of the county.

The most considerable export from this county is coals from the ports of Swansea and Neath. At the former, the facility of loading vessels is so great, that ships of 300 tons enter with one tide, and are loaded and enabled to sail sometimes the next; but usually with the next tide but one. The quantity exported in a year has amounted to 300,000 tons.

GLAMOUR, or GLAMER, an old term of popular superstition in Scotland, denoting a kind of magical mist believed to be raised by sorcerers, and which deluded their spectators with visions of things which had no real existence, altered the appearance of those which really did exist, &c.

GLANCE, *n. s.*, *v. n.* & *v. a.* } Goth. *glans*;
GLANC'INGLY, *adv.* } Germ. *glantz*, to glitter; or from *To* GLOW, which see. A sudden ray of light: to shoot as a ray; to fly off or strike obliquely; to view with a quick cast of the eye; to move nimbly; to censure by oblique hints: transiently.

He double blows about him fiercely laid,
That *glancing* fire out of the iron played,
As sparkles from the anvil use,
When heavy hammers on the wedge are swayed.
Spenser.

How can'st thou thus, for shame, Titania,
Glance at my credit with Hippolita,
Knowing I know thy love to Theseus?
Shakspeare.

He has a little galled me, I confess;
But as the jest did *glance* away from me,
'Tis ten to one it maimed you two outright.
Id.

Glancing an eye of pity on his losses,
Enough to press a royal merchant down. *Id.*

Some men *glance* and dart at others, by justifying themselves by negatives; as to say, this I do not.
Bacon.

The aspects which procure love are not gazings, but sudden *glances* and dartings of the eye. *Id.*

O' the' sudden up they rise and dance,
Then sit again, and sigh and *glance*;
Then dance again and kiss. *Suckling.*

Sir Richard Hawkins hath done something in this kind, but brokingly and *glancingly*, intending chiefly a discourse of his own voyage. *Hakewill.*

His offering soon propitious fire from heaven
Consumed with nimble *glance*, and grateful steam,
The other's not; for his was not sincere. *Milton.*

There are of those sort of beauties which last but for a moment; some particularity of a violent passion, some graceful action, a smile, a *glance* of an eye, a disdainful look, and a look of gravity. *Dryden.*

When through the gloom the *glancing* lightnings fly,
Heavy the rattling thunders roll on high. *Rowe.*

I have never *glanced* upon the late designed procession of his holiness and his attendants, notwithstanding it might have afforded matter to many ludicrous speculations. *Addison.*

Mighty dulness crowned,
Shall take through Grub-street her triumphant round,
And her Parnassus *glancing* o'er at once,
Behold a hundred sons, and each a dunce. *Pope.*

Through Paris' shield the forceful weapon went,
His corslet pierces, and his garment rends.
And *glancing* downwards near his flank descends.
Id.

He had written verses wherein he *glanced* at a certain reverend doctor, famous for dulness. *Swift.*

The ample mind takes a survey of several objects with one *glance*. *Watts on the Mind.*

Boldly she looked, like one of high degree;
Yet never seemed to cast a *glance* on me;
At which I inly joyed, for truth to say,
I felt an unknown awe, and some dismay.
Harte.

To trim the ringlets of his scented hair,
To aim insidious Love's bewitching *glance*,
Or cull fresh garlands for the gaudy fair,
Or wanton loose in the voluptuous dance.
Beattie.

Ours to the *glance*, none saw beside,
The smile none else might understand,
The whispered thoughts of hearts allied,
The pressure of the thrilling hand. *Byron.*

Match me those Houries, whom ye scarce allow
To taste the gale lest Love should ride the wind,
With Spain's dark-*glancing* daughters—deign to know,
There your wise Prophet's Paradise we find,
His black-eyed maids of Heaven, angelically kind.
Id. Childe Harold.

GLAND, *n. s.* } Fr. *gland*, *glandule*;
GLAND'ERS, *n. s.* } Lat. *glans* and *glandula*: Fr. *glanduleux*;
GLANDIG'EROUS, *adj.* } Lat. *glandulosus*. Used
GLAN'DULE, *n. s.* } also in composition
GLANDULOS'ITY, *n. s.* } with Lat. *fero*. Organs
GLAN'DULOUS, *adj.* }

for secreting fluids in the human body. Hence applied to the secretions themselves when diseased; that which bears acorns or fruit like acorns, from supposed resemblance in shape to a gland.

His horse is possessed with the *glanders*, and like to mose in the chine.

Shakspeare. Taming of the Shrew.

In the upper parts of worms are found certain white and oval *glandulosities*. *Browne's Vulgar Errours.*

The beaver's bags are no testicles, or parts official unto generation, but *glandulous* substances that hold the nature of emunctories. *Id.*

Nature hath provided several *glandules* to separate this juice from the blood, and no less than four pair of channels to convey it into the mouth, which are called ductus salivales. *Ray.*

The beech is of two sorts, and numbered amongst the *glandiferous* trees. *Mortimer's Husbandry.*

All the *glands* of a human body are reduced to two sorts, viz. conglobate and conglomerate. A conglobate *gland* is a little smooth body, wrapt up in a fine skin, by which it is separated from all the other parts, only admitting an artery and nerve to pass in, and giving way to a vein and excretory canal to come out: of this sort are the *glands* in the brain, the labial *glands*, and testes. A conglomerate *gland* is composed of many little conglobate *glands*, all tied together, and wrapt up in the common tunicle or membrane.

Quincy.

The *glands*, which o'er the body spread,
Fine complicated clues of nervous thread,
Involved and twisted with the' arterial duct,
The rapid motion of the blood obstruct.

Blackmore.

Such constitutions must be subject to *glandulous* tumours, and ruptures of the lymphaticks.

Arbuthnot.

The abscess begun deep in the body of the *glands*.

Wiseman.

GLANDS. See ANATOMY, Index.

GLANDERS, a disease in the horse, so termed, probably, from the swelling with which it is usually accompanied, of the sub-maxillary glands. It consists of an altered and vitiated action of the vessels which, in a state of health, secrete the mucus covering the pituitary membrane, or that membrane which lines the cavity of the nostrils.

The marks of glanders are a discharge of purulent matter from ulcers situated in one or both nostrils, more often from the left than the right. This discharge soon becomes glairy, thick, and white-of-egg-like: it afterwards shows bloody streaks, and is fœtid. The glands of the jaw of the affected side, called the kernels, swell from an absorption of the virus or poison, and as they exist or do not exist, or as they adhere to the bone or are detached from it, so some prognosis is vainly attempted by farriers, with regard to the disease; for in some few cases these glands are not at all affected, and in a great many they are not bound down by the affection to the jaw. As there are many diseases which excite a secretion of matter from the nose, and which is kept up a considerable time; so it is not always easy to detect glanders in its early stages. Strangles and violent colds keep up a discharge from the nostrils for weeks sometimes. In such cases a criterion may be drawn from the existence of ulceration within the nose, whenever the disease has become confirmed. These glanderous chancres are to be seen on opening the nostril a little way up the cavity, sometimes immediately opposed to the opening of the nostril; but a solitary chancre should not determine the judgment. The health often continues good, and sometimes the condition also, until hectic takes place from absorption, and the lungs participate, when death soon closes the scene.

The glanders is the opprobrium medicorum, for hitherto no attempts have succeeded in the cure of more than a few cases. By some peculiar anomaly in the constitution of the horse, although conclusive proofs are not wanting that this and farcy are modifications of one disease, and can each generate the other; yet the one is incurable, while the other is cured every day. When glanders has been cured, the time and labor necessary to accomplish the end has swallowed up the value of the horse; and has also, in many supposed instances of cure, left the animal liable to future attacks which have occurred. The experiments on glanders, pursued at the Veterinary College and by White of Exeter, have thrown great light on the disease itself, its causes, connexions, and consequences; but have done little more. From these we are led to conclude that glanders will produce farcy, and that farcy can produce glanders; that glanders is highly infectious, and that such infection may be received by the stomach, or by the skin when it is at all abraded or sore: and it is also probable that it is received by the noses of horses being rubbed against each other. White's experiments go to prove that the air of a glandered stable is not infectious; but this matter is by no means certain, and should not be depended on without a greater body of evidence.

The cure, it has already been stated, is so uncertain that it is hardly worth the attempt; however, when the extreme value of the horse or the love of experiment leads to it, it may be regarded as fixed by experience, that nothing but a long course of internal remedies, drawn from the mineral acids, can effect it. These have all been tried in their endless variety. White recommends the mildest preparations of mercury, as æthiops mineral; under the conviction that the more acrid preparations disturb the powers of the constitution so much, as to destroy as effectually as the disease. At the Veterinary College the sulphate of copper (blue vitriol) has been long in use. Others have used the sulphates of iron and zinc. Clark recommends the daily administration of a drink or ball, composed of the following ingredients: sulphate of zinc fifteen grains, powdered cantharides seven grains, powered allspice fifteen grains; of which he gives one or two extraordinary proofs of utility. All glandered horses in the army are ordered to be shot.

GLANDEVES, a town of France, in the department of the Lower Alps, formerly flourishing but now almost deserted, on account of the overflowing of the Var.

GLANDORE, a town of Ireland, in Cork, with an excellent harbour, three miles west o Ross, and six west of Galley Head. Between this harbour and Ross, the coast is high and bold with only two small coves: viz. Mellcove on the

east and Cowcove on the west. Near the harbour is a castle; and on the upper end a deep and dangerous glen, called the Leap. Long. 8° 56′ W., lat. 51° 22′ N.

GLANDORP (Matthias), M.D, a learned physician, born in 1595, at Cologne, in which town his father was a surgeon. After taking his degree at Padua, and visiting the principal towns of Italy, he settled at Bremen in 1618, where he practised physic and surgery with success, and was made physician to the republic and to the archbishop. He published at Bremen, 1. Speculum chirurgorum, in 1619. 2. Methodus medendæ paronychiæ, in 1623. 3. Tractatus de polypo narium affectu gravissimo, in 1628; and, 4. Gazophylacium polypusium fonticulorum et Setonium reseratum, in 1633; which were republished, with his life prefixed, at London, in 4to. 1729. He died young.

GLANDULÆ RENALES. See ANATOMY.

GLANVIL (Joseph), a learned and ingenious, but fanciful and credulous writer in the seventeenth century, born at Plymouth in 1636, and bred at Oxford. He was a great admirer of Mr. Baxter, and zealous for a commonwealth. After the Restoration, he published The Vanity of Dogmatizing; was chosen F. R. S. and, taking orders in 1662, was presented to the vicarage of Frome-Selwood in Somersetshire. In 1662 he published his Lux Orientalis; in 1665 his Scepsis Scientifica; and in 1666 Some philosophical considerations touching the being of witches and witchcraft. In 1668 he published Plus ultra; or, the progress and advancement of knowledge since the days of Aristotle. He likewise published, A seasonable recommendation and defence of reason; and Philosophia Pia, or A discourse of the religious temper and tendencies of the experimental philosophy. In 1678 he was made a prebendary of Worcester, and died in 1680.

GLANVILLE (Bartholomew), an English botanical author of the fourteenth century, commonly called Bartholomæus Anglus. He was a Franciscan friar, descended of the noble family of Suffolk, and flourished in the reign of Edward III. He wrote a book on natural history, entitled De Proprietatibus Rerum; which was translated into English by John de Trevisa, in 1398.

GLARE, *v. n., v. a.* & *n. s.* } Dut. *glaren*;
GLA'REOUS, *adj.* } French *glaireux*;
GLAR'ING, *adj.* } Latin *glareosus*.

To shine with intense splendor: a piercing overpowering look; any thing transparent, as the white of an egg; notorious as a glaring crime.

Thou hast no speculation in those eyes,
Which thou dost *glare* with.
Shakspeare. Macbeth.

Look, how pale he *glares*. *Id. Hamlet.*

After great light, if you come suddenly into the dark, or, contrariwise, out of the dark into a *glaring* light, the eye is dazzled for a time, and the sight confused. *Bacon.*

His *glaring* eyes with anger's venom swell,
And like the brand of foul Alecto flame. *Fairfax.*

About them round,
A lion now he stalks with fiery *glare*.
Milton.

One spirit in them ruled, and every eye
Glared lightning, and shot forth pernicious fire
Among the' accurst, that withered all their strength.
Id.

Now friends no more, nor walking hand in hand;
But when they met they made a surly stand,
And *glared*, like angry lions, as they passed,
And wished that every look might be their last.
Dryden.

The frame of burnished steel that cast a *glare*
From far, and seemed to thaw the freezing air.
Id. Fables.

He is every where above conceits of epigrammatick wit, and gross hyperboles: he maintains majesty in the midst of plainness; he shines, but *glares* not; and is stately without ambition. *Dryden.*

The court of Cacus stands revealed to sight;
The cavern *glares* with new admitted light. *Id.*

Beholds this man in a false *glaring* light,
Which conquest and success have thrown upon him.
Addison.

I have grieved to see a person of quality gliding by me in her chair at two o'clock in the morning, and looking like a spectre amidst a *glare* of flambeaux.
Id. Guardian.

The most *glaring* and notorious passages are none of the finest, or most correct. *Felton on the Classicks.*

Here in a grotto, sheltered close from air,
And screened in shades from day's detested *glare*,
She sighs for ever. *Pope's Rape of the Lock.*

When flattery *glares*, all hate it in a queen,
While one there is who charms us with his spleen.
Pope.

Then, nor till then, the veil's removed away
And all the woman *glares* in open day. *Id.*

Sighs from a breaking heart my voice confound;
With trembling step to join your weeping train,
I haste where gleams funereal *glare* around,
And, mixed with shrieks of woe, the knells of death resound. *Beattie.*

Maidens, like moths, are ever caught by *glare*,
And Mammon makes his way where seraphs might despair. *Byron.*

GLARIS, or GLARUS, a Protestant canton of Switzerland, bounded by those of St. Gall, the Grisons, Uri, and Schweitz, and having a superficial extent of about 400 square miles. The aspect of the country is not attractive; a large proportion of the surface being occupied by rocks, inaccessible forests, barren heaths, or lofty mountains: its wealth is in pasture, sheep, goats, and cattle.

The canton properly consists of one great valley, and three lateral ones, enclosed by mountains on all sides except the north-east. In the valleys, the climate is warm and pleasant, but the soil is stony throughout, and little adapted to agriculture. The principal river is the Linth, from the banks of which the great valley extends in the form of an amphitheatre of fine meadows terminated by rocks and mountains covered with snow. This gives the country, on entering it from the north, a very picturesque appearance. The principal lakes are those of Wallenstadt and Clonthal. The only mineral production of importance is slate; but rock crystal, marble, gypsum, spar, and different petrifactions, are found in all parts of the country; and large quantities of cheese are annually exported. Merino sheep were lately introduced here, and the quality of the wool has thus been much im-

proved. The carrying trade between Italy and Germany is also prosecuted with activity, and there is also some trade with Holland, by means of the Rhine. Corn is imported.

The inhabitants manufacture, on a small scale, woollen, linen, and cottons. This canton belonged in the middle ages, to the imperial abbey of Seckingen, and was under the protection of Austria till the end of the fourteenth century, when it joined the Swiss confederacy. In the seventeenth century the inhabitants sustained some obstinate contests for their religion, which were, however, terminated in 1683, and liberty of conscience recognised by all parties. The present government is democratic; all males above sixteen years of age having a voice in the general assembly. Glaris was the scene of some hostile operations between the French and Austrians in 1799. It is divided into fifteen small districts. Population 20,000.

GLARUS, the chief town of the above canton of the same name, is situated on a rising ground near the Linth, from the inundations of which it is secured by a thick dam. It is well built, and has a population of about 2500, extensive bleach-fields, and manufactures of cotton. Thirty-two miles east of Lucerne.

GLASGOW, an extensive, commercial, and manufacturing city of Lanarkshire in Scotland, pleasantly situated on the north bank of the river Clyde, which is here crossed by three bridges. The observatory, which stands a little to the north-west of the city, is in W. long. 4° 15′ 51″ and N. lat. 55° 52′ 10″. The greater portion of the city is built upon a plain on the banks of the river, whence it gradually ascends towards the north till it reaches the rising ground on which the cathedral stands. Glasgow, with its various suburbs, the barony of Gorbals, Calton, Bridgetown, Brownfield, Anderston, and Finnieston, stands on nearly 700 acres of ground; and when viewed from many points at a distance, has, with its numerous spires, domes, and towers, a very beautiful and interesting appearance.

It is built with great regularity and order, the streets being upon an average sixty feet wide, and laid out, almost universally, at right angles with each other. They are well paved with whinstone, and broad flag-stone, and kept remarkably clean and in good order. The houses are in general lofty, and built of free-stone, with polished and ornamented fronts. In the older parts of the town they are divided, as is customary in Scotland, into flats, and some of them contain six stories above the ground; but of late years numerous new streets and ranges of buildings of great architectural beauty have been erected, the houses of which are on the English plan. The principal street in Glasgow, one of the finest in Europe, and which assumes, at different points, the names of Trongate and Argyle Streets, is in length about a mile, and in breadth, upon an average, seventy feet. Its chief interest, however, arises from its being the principal scene of that restless spirit of enterprise and industry which has raised Glasgow to the rank of the second city in the empire.

Though the climate is generally healthy, the air is here somewhat moist. The yearly average of rain which fell during the thirty years previous to 1790 was 29,$\frac{55}{100}$ inches. The following table shows the quantity of rain which fell from 1810 to 1814, as ascertained at the Macfarlane Observatory.

Year.	Inches.
1810 . . .	25·132
1811 . . .	27·801
1812 . . .	22·81
1813 . . .	18·368
1814 . . .	19·522

The soil around the city is very various, but is so much improved by an abundant supply of manure as to produce heavy crops of every description. Coal, free-stone, whin-stone, and clay of excellent quality, are to be found in almost every direction.

The word Glasgow has been said to signify, in Gaelic, gray smith; whence it has been inferred that a mechanic of this description had exercised his trade here in very early times. The name is also conjectured to be derived from *glass*, *coed*, two words signifying the green wood; and it is certain there was in ancient times an extensive forest in the neighbourhood of the cathedral. *Clais-ghee*, in Gaelic, means a black or dark ravine, which, if this is the origin, may allude to the dark glen which has been formed by the stream to the east of the cathedral. Other etymologists derive the name from *eaglais*, a church, and *dhu*, black; *eaglaisdhu*, or *eaglaisghu*, signifying, on this hypothesis, the black kirk. It is said that the bishopric of Glasgow was founded in 560 by St. Mungo Kentigern, the tutelar saint of the city. History has recorded nothing respecting his successors, or the bishopric, for a period of more than 500 years afterwards. Prior to 1100 the church appears to have been a mean building, chiefly constructed of timber which had gone into decay. In the year 1123 John Achaius, then bishop, finished and decorated a considerable proportion of the present cathedral, which was consecrated in the presence of the king, David I., who bestowed on the church the lands of Partick, &c. In 1174 bishop Joseline made additions to the cathedral; and in 1180 he procured a charter from William, surnamed the Lion, erecting Glasgow into a royal burgh, and granting liberty to hold a fair for eight days annually. The town appears to have slowly increased, and additions to have been made to the cathedral from time to time by succeeding bishops, until in the beginning of the fifteenth century we find that it contained several streets and received not a little benefit from the wealth which the extensive revenues of the bishopric introduced. About this time bishop Cameron, a very high-minded prelate, made great additions to the episcopal palace, and compelled his prebends, and the other clergy connected with the cathedral, to erect houses, and reside here. In 1450 bishop Turnbull obtained a charter from James II. erecting the town and the patrimonies of the bishopric into a legality; and he likewise procured a bull from pope Nicholas V. for erecting a university within the city, which he afterwards endowed. The establishment of this seminary of learning tended

considerably to increase the number of the inhabitants; and the consequent necessity for additional houses caused the town to spread down the High Street, towards the present cross; and thence along the Salt-market, the Gallow-gate, and the Trongate. Notwithstanding this increase of buildings, however, Glasgow at this time held but an inferior rank among the towns of Scotland; for it would appear that, in 1556, when the royal burghs were taxed by the order of queen Mary, it held only the eleventh place.

In 1652 a great fire broke out which destroyed the greater portion of the Salt-market, Trongate, and High Streets, the houses of which were at that time formed chiefly of wood, and nearly 1000 families were thus ruined. It would appear, however, that in 1695 Glasgow had in some measure recovered from her disasters; for, at the assessment of the burghs that year, she was rated as the second in Scotland in point of wealth. About this period the buildings in the Trongate extended no farther west than the Tron-church. The town continued to increase but very slowly for a considerable period; and, indeed, it is not till the union of the two kingdoms, which, by throwing open the trade to America, gave a vast impulse to the west of Scotland, that we find any important additions made to the city. About the commencement of the last century several new streets were opened up, an additional church was erected, and a few street lamps were introduced for the first time. In 1752 the first four-wheeled gentleman's carriage appeared in use. Subsequent to the middle of the last century, however, the increase of Glasgow in wealth, population, and extent has been rapid and unprecedented. The wealth which began to be acquired in the trade to Virginia has continued to accumulate and increase by the introduction of various manufactures; and by the cultivation of a commerce which now connects the city with every corner of the civilised world. Since the period to which we have alluded, streets, squares, and public buildings have been yearly added, and are still adding to the splendor of the city. Religious and charitable institutions; associations for the improvement of manufactures and commerce; and societies for the dissemination of science and literature, have been formed on a scale worthy of the wealth and enterprise of the inhabitants.

In 1712, a few years after the union, the rental of property within the burgh was £7840 2*s.* 6*d.* sterling; in 1824-5 it was, as taken from the government surveys, £279,600 sterling. The value of heritable property within the burgh, taking it at twenty years purchase of the government rental, which, as it is always below the real rent, may be assumed as a fair criterion, is £5,592,000 sterling. The property tax, when last exacted, which was in 1815, was £82,000 sterling; of which £24,000 sterling was raised from property, and £58,000 sterling from business. The assessed taxes were formerly about £30,000 per annum, but in consequence of the late reductions they amount only at present to about £20,000. The total amount of stamp duties collected in Glasgow may be estimated at considerably above £100,000. In 1781 the revenue arising from the post-office was £4341; at present it is usually about £36,000. In 1821 the population was 147,043; the last calculation, made by M'Cleland in 1824, raises it to 170,000.

Since the erection of Glasgow into a burgh in 1180 its constitution has undergone many alterations. In 1268, however, it appears that the town was governed by a provost and bailies. From the year 1450, when the town and patrimony of the bishops were incorporated down to the Reformation, the bishops, or certain lay lords, in their right nominated the magistrates. In 1633 the parliament declared the burgh to be royal, with a power of electing their magistrates; yet we find their right afterwards disturbed by Cromwell and the privy council. In 1690 the town was again declared free by a charter of William and Mary, confirmed by an act of parliament in the same year, to the effect that the town council should have power to elect their own magistrates. The constitution of the burgh underwent some alterations at the convention of royal burghs in 1801, and is now declared to be as follows:—The affairs of the burgh shall be governed by a provost and three bailies of the merchants' rank and two bailies of the trades' rank; twelve counsellors of the merchants' and eleven of the trades' rank; a master of works, who must be of the merchants' rank, and a treasurer of the merchants' and trades' rank, alternately. The dean of guild and a convener of the trades house, are counsellors *ex officio* during the first year they are in office, after which they must be elected ordinary counsellors. The lord provost and the five bailies are charged with the executive, while the magistrates and council conduct the other affairs of the community. This burgh of itself does not return any representative to parliament. The magistrates and council of the burghs of Glasgow, Rutherglen, Dumbarton, and Renfrew, elect one member among them; in the event of equality, each burgh takes the casting vote in rotation.

The revenue of the burgh of Glasgow arises from various sources, but chiefly from what is called the common good; which consists of an impost of two-pennies Scots on the Scotch pint of ale or beer sold within the burgh—ladles and multerres which are certain dues on grain, meal, and fruit brought into it—dues from the public washing-house—rents of markets, church seats, houses, mills, and lands—feus of lands, feudal casualties, and ground annuals—fees from burgess-entries, &c. &c. The expenditure is incurred by burgh assessments—criminal prosecutions, alimenting criminal prisoners, and expense of the prison—contribution to the police establishment—expense of the ecclesiastical and civil establishment—of the grammar school—repairs of heritable property—interest of money, and general improvements. The revenue usually exceeds the expenditure; but, in the ecclesiastical department, it falls considerably short. The following tables show the particulars and total amount of the revenue and expenditure from 1817 to 1824.

REVENUE.

	Church Seat Rents.			Feu Duties and Casualties.			Rents of Lands, Houses, Mills, Quarries, Salmon-Fisheries, &c.			Dues of Markets, Slaughter-house, Washing-house, Ladles and Mulcterres.			Pasturage, &c., in Green and Show Stations.			Impost on Ale and Beer.			Burgess-Entries.			Dividends on Shares on Canal, Gas, and Water, Companies.			Total Revenue.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1817	3205	18	3	4343	17	11	1968	15	0	3469	0	0	348	6	8	921	2	6	539	18	1	315	0	0	15,111	18	5
1818	3227	5	10	4453	13	0	1974	15	11	3582	10	0	442	12	0	1149	6	4	188	4	0	340	0	0	15,358	7	1
1819	3916	16	6	5193	5	0	1986	14	3	3452	0	0	389	4	0	1104	17	3	109	7	10	340	0	0	16,482	4	10
1820	3929	4	6	5141	16	3	1973	16	9	2977	0	0	372	3	11	851	16	10	75	10	7	368	0	0	15,689	8	10
1821	4426	11	9	5400	19	0	1955	6	6	2927	10	0	359	13	10	974	11	2	81	19	10	301	10	0	16,428	2	1
*1822	4348	19	1	2927	8	2	1316	1	1	347	18	11	448	11	6	544	10	9	152	14	6	200	0	0	10,286	4	0
1823	4303	12	0	5253	1	1	2038	8	4	2755	9	4	494	13	6	931	2	9	323	10	9	360	0	0	16,459	17	9
1824	3880	19	3	4799	16	4	1986	6	2	2970	5	0	452	8	8	1197	13	2	383	4	2	315	0	0	15,985	12	9

* The city books were regularly balanced on the 31st of December, annually, till 1822, when an act of Parliament was passed, requiring that in future the accounts of every royal burgh in Scotland shall be made up each year to the day preceding the annual election of magistrates. The statement for 1822, therefore, exhibits an incomplete view of the receipts and expenditure for that year. The accounts are now balanced on the 30th of September, annually.

EXPENDITURE.

	Ecclesiastical Department.			Civil Department.			Education Department.			Military Department.			Police Department.			Criminal Department.			† Bridewell Department.			Finance Department.			Total Expenditure.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1817	4173	2	6	4067	17	8	765	11	2	109	1	7	819	7	6	1969	1	10	683	2	0	2226	11	9	14,818	16	0
1818	3603	1	8	4784	3	6	385	18	0	91	2	2	1009	4	10	1635	16	11	576	17	8	2806	9	7	14,892	14	4
1819	4581	12	4	4174	9	4	389	2	11	229	19	10	926	16	5	3051	16	11	231	10	3	2761	6	2	16,346	14	2
1820	4477	8	4	5886	8	3	347	3	4	305	17	0	870	7	6	3552	19	3	241	7	1	2480	1	10	18,161	12	7
1821	4962	1	4	5582	13	10	496	13	0	94	14	1	808	0	0	2302	18	5	255	4	1	3555	18	4	18,058	3	1
*1822	2578	15	6	4210	7	1	348	17	0	30	16	0	409	0	0	1588	10	5	206	9	9	1204	4	5	10,577	0	2
1823	4669	13	0	4221	2	5	526	18	7	40	17	11	800	0	0	1630	4	0	236	16	5	3267	7	8	15,393	0	0
1824	4708	15	0	5253	2	10	489	3	11	37	3	8	800	0	0	1546	2	0	271	0	0	2500	11	3	15,605	18	9

* See Note to preceding Table.

† Since Whitsunday, 1824, the City has been freed from the expense of Bridewell; the act of Parliament, lately passed, ordaining it to be supported by an assessment on the inhabitants of the city and county.

In addition to the revenue of the burgh, the magistrates are entrusted in whole, or in part, with the administration of several other funds, viz. that arising from the navigation of the river Clyde, assessment for the maintenance of the poor, statute labor conversion fund, portage of the bridges, &c.

By the constitution of the burgh, besides the magistrates and council, two other distinct bodies are recognised, the merchants' and trades' houses. The merchants' house consists of all the merchant-burgesses who have paid their regular fee to the funds of the house. The dean of guild, by courtesy styled the lord dean of guild, is president of this house. The members have only the privilege of attending one meeting in the course of the year, and of sharing in the election of twenty-four members of the dean of guild's council. This council consists of the dean of guild, the provost, the three merchant bailies, the collector, and the twenty-four merchants nominated councillors; and to this body is intrusted the administration of the whole funds and affairs of the house throughout the year. The funds arise chiefly from rents, fees, ground annuals, interest, entry-money of members and burgesses, donations and mortifications. The trades' house consists of the deacon-convener, who is president, the late convener, the two trades' bailies, the present and late collector, the present and late deacons of the different incorporated trades, and twenty-six assistants nominated from the incorporations. To these members the whole civil and political interests of the house are entrusted. The affairs of finance are placed under the management of the convener, the deacons, and extraordinary members of the house; these latter are the trades' bailies, collector, and members who have passed the chair, or been at any time in the magistracy. The funds of this body arise from sources similar to those of the merchants' house. Glasgow has the advantage, not only of several local courts of law, where questions of every description, from the most important to the most trifling are decided; but is visited half yearly by branches of the supreme justiciary and civil jury courts. These courts make their circuits in the months of April and September. In the justiciary court all criminal matters arising in the counties of Lanark, Renfrew, or Dumbarton, considered to be of an aggravated nature, are tried before two presiding judges, and a jury of fifteen persons chosen from the city, and from other portions of the county of Lanark or the adjoining counties of Renfrew and Dumbarton. The judges of this court have likewise a power of reviewing all questions below the value of twenty-five pounds brought before them from any of the inferior local courts. The civil jury court is but of recent introduction into Scotland, and has been adopted in imitation of the English courts. In this court all questions arising out of matters of fact are tried before a presiding judge and twelve jurymen, whose verdict must be unanimous. Issues are prepared previous to the trial in a concise yet comprehensive manner; and it is to the truth or falsehood of the statements contained in these that the verdict of the jury refers.

The sheriff's court, in which the sheriff and his substitute, who are both lawyers, preside, has jurisdiction in civil as well as criminal matters within the county. A court for ordinary civil procedure is held every Wednesday during the sitting of the supreme court at Edinburgh, and once a fortnight during vacation. In this court the procedure is entirely in writing, and the members of the faculty of procurators are the practitioners before it. Besides this, for all civil matters which require despatch, access may be had to the judges each day, and the procedure, in such cases, is summarily despatched, and does not wait for the ordinary court days. In trying criminal matters, which infer capital or corporal punishment or banishment from the county, the sheriff sits with a jury of fifteen persons, though he investigates and punishes the more petty crimes by fine or short imprisonment without the intervention of a jury. The decisions, both civil and criminal, of the sheriff, like those of all other local judges, are subject to the review of the court of session or court of justiciary at Edinburgh. The town court, in which one of the magistrates, with the assistance of a legal assessor, presides, meets each Friday during session, and once a fortnight during vacation for the despatch of business. The powers and the forms of this court are precisely similar to those of the sheriffs, but are limited within the liberties of the city. Here the members of the faculty of procurators likewise practice. The magistrates also judge in criminal matters, but, as they limit their right to petty delinquencies, they never use the intervention of a jury. The dean of guild's court takes cognizance of all disputes arising between neighbouring proprietors of heritable property within the burgh, encroachments on streets, insufficiency of buildings, and adjustment of weights and measures. The court consists of the dean of guild, who is president, four members from the merchants' house, and four from the trades' house, who are styled the dean of guild's brethren. They are assisted in their decisions by a legal assessor. The court meets on Thursdays, and the procedure is nearly similar to that before the sheriff and magistrates' court. In the water bailie court, which is open daily, all questions of a civil and cirminal nature connected with maritime affairs, and occurring within the jurisdiction of the court, which extends on the river from the harbour at Glasgow to the Clough light-house, twenty-six miles below the town, are decided. The justices of the peace, as elsewhere, hold petty and quarter sessions in the city, in which all infringements of the excise laws, game laws, disputes between master and servant, and questions of county police are investigated and decided. Besides the local courts before enumerated, in which questions of great value and of nice legal import are often tried, courts are weekly held on separate days by the sheriff, the magistrates, and the justices of the peace, for the investigation and discussion of petty claims, at which the parties attend personally, and a vivâ voce decision is given by

the presiding judge. In these small debt courts, particularly the sheriff's, which is but of recent origin, a vast number of petty claims are discussed; and justice is thus quickly, and at a trifling expense, administered among the poorer classes. The taste for litigation among the inhabitants of this wealthy city, may be in some degree estimated from the following statement. Exclusively of the suits carried on in the sheriff's court, justice of the peace court, and police court, 5798 processes were instituted in the magistrates' courts within the royalty, in 1815, viz. ordinary town court, 1658; summary town court, 608; criminal cases in the town court, 720; dean of guild court, ninety; maritime court, 109; conscience small-debts court, 1053; convene small-debts court, 1560. Since 1815 there is every reason to believe that litigation has increased, particularly before the sheriff, since the institution of his small-debts court.

It is not to be expected, in an article so limited as the present, that any very minute account of the numerous public buildings of the city can be given; or that even the names of many of them can be mentioned. The most important, however, are the cathedral, which stands on a rising ground in the north-east division of the city, and is a very magnificent specimen of the early English style of architecture, and is the only perfect specimen but one of the ancient religious edifices, which the misdirected zeal of the Scottish reformers has spared. It is a cross church with remarkably short transepts, having a very beautiful tower and spire at the intersection, and a smaller tower at the north-west end. Much pains have been taken of late years in preserving and repairing it. The greatest internal length of the building from east to west is 319 feet; the breadth sixty-three feet; the height of the nave ninety feet; and of the choir eighty-five feet. The edifice is supported by 147 pillars, and lighted by 157 windows. It at present accommodates two congregations, thus serving for two city parish churches. One of these congregations is accommodated in the choir, now called the inner High Church; the western part of the nave, an internal wall having been erected, accommodates the other congregation, and is called the outer High Church. The portion of the nave between the entrance to the choir and the outer High Church is used as a vestibule or place of entrance for both churches. The crypt, certainly the finest in the kingdom, and situated immediately beneath the choir, is used as a burying ground for the heritors of the barony parish. Besides the cathedral, Glasgow contains ten other parish churches, among which St. Andrew's, St. George's, and St. David's, deserve to be noticed as being ornamental to the city. St. Andrew's was founded in 1739, is a pretty exact copy of St. Martin's in the Fields, Westminster, and is considered the best specimen of the composite order in Scotland. St. George's was built in 1807, from designs by Mr. William Stark: the original design, however, was considerably injured by some unfortunate deviations which were considered necessary to be made in erecting the building. St. David's, erected in 1825, is one of the greatest ornaments the city has recently received: it is in the Gothic style, and from designs by Mr. Rickman of Birmingham. The Catholic chapel, which is in the pointed style, is a very fine structure, and richly decorated both externally and internally. Glasgow and its neighbourhood possess eight chapels connected with the established church, and upwards of thirty belonging to different denominations unconnected with the establishment; besides several others where the worship is conducted by lay elders. Some of the chapels recently erected, by dissenting congregations, are handsome buildings, and good specimens of the various orders according to which they are erected.

The most ancient of the three bridges is situated at the foot of Stockwell Street, and was erected in the year 1345 by William Rae, then bishop of Glasgow. In the year 1777 an addition of ten feet was made to its breadth, by which it was strengthened, and the passage was rendered more convenient for carriages. Being the great thoroughfare, however, to the city from the south, it was still found too narrow, and was therefore, in 1820, again widened in a very ingenious manner. The whole former breadth of the bridge is now allotted for carriages, and, the old parapets having been removed, a new series of cast iron arches have been added to each side, on which pavements of stone, for the convenience of foot passengers, are supported. The other stone bridge, at the foot of Jamaica Street, was erected in 1768 from designs by Mr. Milne, and appears to combine strength with simple elegance. It is in contemplation at present to widen it in the same manner as the other bridge has been widened. In 1803 the third bridge, which is of timber, and much admired for the simplicity of its structure, was thrown across the Clyde at the foot of Saltmarket Street, for the accommodation of foot passengers only. This useful structure, notwithstanding that much money and great care have been yearly expended in keeping it in repair, seems to be now too much decayed to be longer used with safety. The magistrates have, therefore, very wisely closed it as a thoroughfare. In 1814 an act of parliament was obtained for building a bridge near the site of one which fell ere it was completed in 1795; and designs were procured from Mr. John Rennie; but nothing farther has yet been done with regard to it.

The town-hall buildings are situated at the cross. The basement story forms an arcade with a rusticated front; the upper part is in the Ionic order, and the hall itself is elegantly fitted up. It contains portraits of the kings and queens of Scotland, and other public characters; the bust of his late majesty, and a statue of the late Mr. Pitt by Flaxman.

The trades'-hall buildings, in which the fourteen incorporated trades hold their meetings, were erected in 1791, by designs from Mr. Robert Adams. The front consists of a centre building and two wings, the former having two stories, supported by a rustic basement. The whole is crowned by a dome, terminating in a lantern, which has a very fine effect. The merchants of Glasgow have, at present, no hall of their own in which to hold their meetings; their former hall stood in the Bridgegate, but, as nei-

ther its situation nor condition was considered suited to their wealth and respectability, the building was taken down, and the ground sold some years ago; the steeple, however, one of the finest in the city, has been allowed to remain. Many proposals have been made for building a new hall and an exchange, and a committee for the accomplishment of these objects has been in existence for some years, but they have not, as yet, done more than plan.

The jail, court-hall, and public offices, situated at the west end of the green, were erected in 1810, from designs by Mr. William Stark. This building is of the Doric order, the portico in front possessing very nearly the proportions of the celebrated Parthenon. The columns are placed on colossal steps; and there is a recess divided from the portico by a screen of columns like the pronaos of the ancient temple. These buildings are of a quadrangular form, and contain halls for the several courts of justice, and ample accommodation for the whole civil and criminal establishments. The entry to the jail is by the west front. This portion contains two court yards, seventy-four fire rooms, fifty-eight cells, and two apartments for prisoners under sentence of death, so completely cased with iron that it is not necessary to put the criminals in chains. There are also a chapel, a military guard-house, and a dwelling for the governor of the jail. The following tables show the number of persons incarcerated in Glasgow Jail for debt or crime from the year 1815 to the year 1822 inclusive:—

Persons incarcerated for debt,

Years.	Persons.	Years.	Persons.
1815	405	1819	779
1816	458	1820	742
1817	433	1821	838
1818	320	1822	832

Persons incarcerated for crime,

Years.	Persons.	Years.	Persons.
1815	944	1819	1323
1816	1044	1820	1221
1817	1021	1821	1196
1818	1016	1822	1150

The city and county bridewell recently erected (the old buildings having been found inadequate) is in the Gothic style of architecture. It consists of a central compartment and two projecting wings. The former contains the governor's house, offices, and a chapel. The wings, in which the delinquents are kept, is thus under the constant inspection of the governor, while the important object of solitary confinement is completely effected.

The university buildings, and the houses for the accommodation of the professors, are situated on the east side of the High Street. The buildings, and the quadrangles which they circumscribe, occupy a space equal to 9556 square yards. The centre gate, in the principal front, is ornamented with a species of demi-rusticated work; the royal arms in basso relievo, gilt, are placed over the gate, and consols, supporting a broad balcony, are formed at each side. The entire of the façade is terminated on the south by the principal's house, and on the north by that occupied by the professor of oriental languages. The eastmost range of buildings, having become unfit for the purposes intended, were taken down in 1811, and a magnificent range, in the Doric order, erected on their site. This new erection contains the common hall, anatomical theatre, and rooms for the humanity, Greek, logic, chemistry, medical, and mathematical classes. The grounds to the east of the university, called the college garden, are laid out in walks and shrubbery for the use of the professors and students. The Macfarlane observatory is situated at the east end of them. At the west end of these grounds, and immediately in front of that part of the college buildings mentioned as having been erected in 1811, stands the edifice provided for the splendid bequest left by the celebrated Dr. William Hunter to the university. The portico, forming the principal front of this building, which contains the Hunterian Museum, is a very fine specimen of the Roman Doric. The other fronts of the building exhibit a simplicity and elegance which render many views of it little if at all inferior to the principal front. The interior corresponds, in a remarkable degree, to the beauty of the exterior. It exhibits the same simplicity and the same elegance. The saloon, for paintings, is particularly fine in its form, proportions, and decorations, while, at the same time, it is admirably adapted for exhibiting the collection which it contains.

The royal infirmary, both from its appearance and situation, has a very imposing effect. In form it is somewhat of a parallelogram with projections at each end, having a pediment in the centre, supported by pillars of the Corinthian order; a spacious dome terminates the building, which consists of four stories. It was constructed to accommodate 150 patients, yet, some years ago, it was found insufficient to admit the numerous applicants. A large addition has therefore been made to the building, which, while it does not injure its appearance, adds a third part to the accommodation.

The lunatic asylum is a plain edifice, consisting of a central building and four ranges of wards projecting diagonally from it. Its dome and general proportions are considered very beautiful. Hutcheson's hospital, erected in 1803 from designs by Mr. David Hamilton, is also a very respectable addition to the buildings devoted to purposes of benevolence in Glasgow. The theatre is one of the largest and most elegant in the kingdom out of London; and the assembly rooms are, in design and accommodation, worthy of the city.

There can be little question that the situation of Glasgow has tended in a high degree to advance her in the scale of commercial cities. Placed on the border of one of the richest coal and mineral fields in the island with which it communicates by a canal, and connected on the one hand with the Atlantic by the Clyde, and on

the other with the North Sea and German Ocean by the Forth and Clyde navigation, its leading advantages are peculiarly great. Previously to 1707 the foreign trade of Glasgow, such as it was, was chiefly confined to Holland and France. The union of the kingdoms having, however, opened the colonies to the Scotch, the merchants of Glasgow immediately engaged in a trade with Virginia and Maryland. The city soon became a mart for tobacco, and the chief medium through which the French obtained their supplies. This trade was suspended by the breaking out of the American war, and the merchants of Glasgow were obliged to engage their capital in other pursuits. Until about the year 1775 many attempts had been made without effect to open a connexion with the West Indies. In that year the imports from that quarter into the Clyde were as follows: sugar 4621 hogsheads and 691 tierces; rum 1154 puncheons and 193 hogsheads; cotton 503 bags.

The increase of trade which has taken place since that period may be appreciated from the following statement of imports, taken from the custom-house books for the year 1815. Exclusive of grain, hemp, tallow, &c., from the Baltic through the great canal, sugar 540,198 cwt. 2 qr. 25 lbs.; rum 1,251,092 gallons; cotton wool 6,530,177 lbs. The import duties on these and other articles amounted to £563,058 2*s.* 6*d.* They employed 448 ships, the tonnage of which was 79,219 tons and 4868 men. The exports during the same period to America, the West Indies, and different parts of Europe, amounted to £4,016,181 12*s.* 2½*d.* In this traffic were employed 592 ships, 94,350 tonnage, and 6,476 men. Previous to 1718 the commerce of Glasgow was carried on in vessels chartered from the English ports. In that year the first ship built on the banks of the Clyde belonging to the city crossed the Atlantic. At the close of the American war an intercourse was opened with the different states of the American union, and this trade together with that to Canada and Nova Scotia has become both valuable and important to the merchants of Glasgow.

In the spring of 1816 the first ship which sailed direct from Scotland to the East Indies was despatched to Calcutta by Messrs. James Finlay, and Co. Since then a number of Glasgow merchants have engaged in the trade to India. Twenty-two banks and branches of banks do business in the city, many of them to a considerable amount. Linens, lawns, cambrics, and other articles of similar fabric were the staple manufacture in Glasgow till 1785, when the introduction of fine muslins from yarn spun by mule-jennies, gave to the city a new branch of trade. The progress of the cotton manufacture after its introduction was very rapid, and has come to be of great importance; the manufactures of Glasgow not only supplying their own export merchants, but having opened extensive connexions with London and other parts of England, and even with the continent. In the year 1818 there were fifty-four mills for spinning cotton, containing 600,000 spindles, belonging to Glasgow, situated either in the city or country adjacent. Since then the number has increased to 737,500 spindles. In the summer of 1825 there were in the city or neighbourhood fifty-four loom factories, of which thirty were in full operation and twenty partly filled with machinery. The gross number of power looms then working amounted to 7400, producing about 37,000 pieces weekly, or 1,924,000 pieces containing 48,100,000 yards per annum. The number of hand looms employed by Glasgow manufacturers was calculated in 1819 at 32,000, but of these only 18,537 were situated in Glasgow or its neighbourhood, the rest being in different small towns around the country. In 1802 the manufactures of Bandana handkerchiefs was established by Messrs. Monteith, Bogle, and Co.; and this branch of trade, which has become very important, has hitherto been confined to Glasgow. There are at present thirty-eight calico printing establishments in Glasgow and its vicinity, in which Britannias, black and purple shawls of various widths, handkerchiefs of various sizes and patterns, and garments are printed. The excise duties paid on printed goods for the year ending July 1825 was £380,421 0*s.* 10*d.* Glasgow possesses twenty-two iron foundries, besides several other large establishments for the manufacture of steam engines, and of cotton, flax, and wool, machinery. The manufacture of steam engines has become very extensive from the number employed in manufactures and in steam navigation, besides a considerable demand from other parts of the kingdom. From a calculation made by M'Cleland, in April 1825, there were then employed in connexion with the city 310 steam engines, aggregating 6406 horse power. There are sixteen brass foundries carried on, in one of which the casting of tower or turret bells is executed with great skill and success. For the dressing, upmaking, and finishing, of cotton goods there are twelve calender houses containing thirty-two calenders worked by steam, and twenty lapping-houses, which are able on a moderate computation to calender 296,000 yards in a day, and to dress 530,000 yards. The Clyde was the first river in Europe on which steamboats began to sail; and since their introduction, in 1811, an immense number have been constructed by Glasgow engineers, some of them at great cost and for various parts of the world. At present there are upwards of sixty plying on the river belonging to the city. The flour mills belonging to the corporation of bakers are probably the most complete in Britain; there are nineteen pairs of stones moved by water, and six by steam, by which 65,000 quarters of wheat can with ease be annually manufactured into flour. In 1815 90,000 bolls of wheat were manufactured into flour. The granaries are calculated to contain from 30,000 to 35,000 bolls of grain.

The chemical manufactories of Glasgow are deserving of much more particular notice than we can afford to bestow on them. The works of Messrs. Charles Tennant, and Co. are understood to be the largest of the kind in the world, covering many acres of ground. About 1000 large carboys of concentrated sulphuric acid are said to be manufactured weekly, besides a corresponding quantity of oxymuriate of lime for bleaching, crystals of soda, and soaps. There are besides several other similar establishments,

though on a smaller scale, which together manufacture a supply of chemical products, adequate not only to the bleaching and dyeing manufactories of Scotland, but capable of supplying the paper manufacturers of London, and many calico printers in Lancashire. The works of Mr. Charles Macintosh are celebrated for cudbear of the finest quality, made from lichens gathered in great quantities in Sardinia, Sweden, and Norway: his crystals and prussiate of potassa are unrivalled for their beauty and purity, and his Prussian blue cannot be excelled. The chemical works of Messrs. Turnbull and Ramsay are famous for the manufacture of pyroligneous acid of the finest quality, and for superb crystals of bichromate of potassa used for dyeing the brilliant chrome yellow on calicoes. At a little distance from the city are several large chemical manufactories, particularly those belonging to Mr. Macintosh at Hurlett and at Campsie, where alum and copperas are prepared on a very extensive scale. There is also a similar manufactory carried on near Hurlett by Messrs. Wilson.

There are also twelve large distilleries in the city and suburbs, besides others on a smaller scale, and several breweries. The coal trade is carried on to a very great extent, and vast quantities are exported to the West Indies, and other parts of the world.

There seems to be little doubt that much benefit has accrued to Glasgow from the institution of its chamber of commerce and manufactures, the earliest establishment of the kind made in the island. It was incorporated by royal charter in 1783. The object of this institution is to keep a watchful eye on whatever may be supposed to affect the commercial interest of Glasgow, or its neighbourhood; and, at the same time, to serve as the organ of communication between the manufacturing and commercial body of the district, acting either generally or separately, and the legislature, or any departments of the state.

The art of printing was first introduced into Glasgow by George Anderson in 1630. A century afterwards Robert Foulis, and soon after his brother Andrew, were appointed printers to the university. They both possessed considerable genius, taste, and literary enterprise, and are celebrated for printing a series of the classics in a style of beauty and elegance previously unrivalled in Britain. At present the university printing-office is the largest in Scotland, with the exception of that of king's printer in Edinburgh. The following newspapers are here in present circulation:—The Journal, published every Friday; the Herald, on Monday and Friday; the Courier, and the Chronicle, on Tuesday, Thursday, and Saturday; the Free Press, on Wednesday and Saturday; and the Scots Times, and Saturday Evening Post, every Saturday.

The police establishment is as efficient as any in the kingdom. It consists of a superintendant, collector, treasurer, clerk, and surveyor; three constables, twenty-eight officers, 100 watchmen, and twelve patrol-men, besides the superintendants of lamps, weighing-machines, and fire-engines. The latter has fifty firemen under him, with a suitable equipment of fire-engines and water-butts. The executive power, and the administration of all the other affairs, is vested in the magistrates and twenty-four general commissioners. The establishment is supported by an assessment on dwelling-houses, shops, or warehouses, and a sum contributed yearly from the city funds. The receipts for the year ending June, 1825, were £14,069 17*s.* 7*d.*, the disbursements £12,884 2*s.* 2*d.*

Among the literary institutions of Glasgow, the university, long so famous, deserves the first notice. It possesses professors of great talent in every branch of human learning. In the year 1819 there were 1264 students attending it. In the Andersonian institution lectures are regularly delivered on natural philosophy, chemistry, and mechanics; other departments, such as anatomy, mathematics, and botany, have occasionally been introduced. This institution has two peculiarities; there is a course of lectures delivered to ladies yearly, and another to mechanics. It was the first institution in the world in which scientific instruction at a cheap rate was delivered to the laboring man. The mechanics' institution arose out of a difference which occurred in the mechanics' class of the Andersonian institution. The new institution has been incorporated by the magistrates, and is at present in a very flourishing condition. In it lectures are delivered to about 800 students, on mechanics, chemistry, mathematics, and geography, natural history, popular anatomy, and political economy. In the public grammar-school there are six classes, viz. the rector's, for Latin and Greek; four others for Latin; and a commercial class: the school is generally attended by from 500 to 600 students. Glasgow possesses several literary and scientific societies, among which the college library, the literary and commercial, the philosophical, the medical, and the dilettanti societies, are the most conspicuous. The royal botanic garden, consisting of nearly six acres and a half of ground, contains 9000 distinct named species of plants, besides 3000 un-named; the plants in pots amount to 60,000; grasses 500; the collection of bulbous plants contains upwards of 900 species and varieties. Besides the college library, which is very valuable; Stirling's public library, containing upwards of 7000 volumes; the Glasgow public library, which contains 6000 volumes; and the foreign library, the object of which is to form a collection of all valuable works in the modern European languages; there are a great variety of circulating libraries for the use of the inhabitants. In the year 1819 there were 239 teachers, besides those in the public seminaries already alluded to, who taught privately various branches of education in the city and suburbs; from this, some estimate may be formed of the extent to which education is sought after. The public institutions, and benefit societies, which are established in this city for the relief of the necessitous are so numerous, and of so complicated a nature, that it is impossible to do more than mention the names of a few of them. The Merchants' and Trades' houses, Faculties of Physicians and Surgeons and Procurators, and the fourteen incorporated trades, bestow considerable sums on the poor connected with their respective bodies. Aged and destitute people, and children,

are supported in the Town's hospital, besides a large number of out-door pensioners, who are relieved weekly. Hutcheson's hospital, besides educating and clothing poor children, distributes yearly, to 200 individuals, pensions varying from £5 to £25. Large sums are yearly raised by subscription for the support of the Royal Infirmary, Lunatic Asylum, Magdalen Asylum, Lock Hospital, Humane Society, Dispensary, &c. In addition to these, the general session, the Highland, Buchanan, Graham, Stirlingshire, Dumfriesshire, Ayrshire, &c., societies, and a variety of benevolent and benefit societies, are careful in providing for the wants of the poor entitled to apply to them. It has been calculated by M'Cleland, whose general accuracy leaves little doubt as to the correctness of the result, that in the year 1818-19 the sum of £35,711 6*s.* 7*d.* was expended by the various public charities, including the free schools and public hospitals: that £102,020 19*s.* 4*d.* was distributed in private charity; and £2272 11*s.* 3*d.* was raised for the support of the various religious societies: thus making a grand total of £140,004 17*s.* 8*d.* expended in charity in the city and suburbs in one year.

In addition to the public markets for the sale of butchers' meat and vegetables, the magistrates have recently erected a market for the sale of live cattle; when the whole design is completed, the market will be the most extensive in the kingdom, with the exception of Smithfield, to which however it will be superior in regard to arrangement.

Glasgow is well supplied with water from the Clyde, which is brought into the town, and distributed through every street and house in the city. In 1817 a company was incorporated for the purpose of supplying the city with gas-light. Under the direction of their talented and accomplished engineer Mr. J. B. Neilson, their works have been brought to a state of unrivalled perfection. They have laid down upwards of sixty miles of pipes, of different sizes, for conducting the gas to the various public works, shops, warehouses, and street lamps, which are now entirely lighted in this manner.

The value of the butchers' meat sold in the Glasgow market during the year 1822 is calculated at £242,800: the tallow, hides, &c., at £61,169 4*s.* 5*d.*; making in all £303,969 4*s.* 5*d.*; the value of the bread, baked and sold, in the city and suburbs, at £177,266 10*s.* 8*d.*; and of the milk sold during the same period £67,375 7*s.* 0*d.*

The Barony parish of Glasgow was originally part of the parish of Glasgow, but was erected into a separate one in the year 1595. The boundaries of this extensive parish are exceedingly irregular; but it may be shortly described as lying around Glasgow, and encircling it on the east, north, and west sides, both its extremities above and below the city being bounded on the south by the river Clyde. This parish contains a population of upwards of 50,000 inhabitants, who are included, however, in the enumeration of the inhabitants of Glasgow; extensive suburbs of the city being, with the exception of the Barony of Gorbals, situated in this parish. The suburb of Calton is situated in the east part of this parish, and to the east of the city. It contains about 16,000 inhabitants, who are mostly weavers, or employed in the cotton factories. It was erected in 1817 into a burgh of Barony, is governed by its own magistrates, and possesses an effective police establishment. Bridgeton, containing a population of 14,000, extends in a south-east direction from the Calton to the Clyde. The inhabitants are likewise chiefly employed as weavers or cotton spinners. To the west of Glasgow stand the suburbs of Anderston and Finnieston, erected in 1824 into a burgh of Barony, containing a population of 7000 inhabitants, and governed by magistrates, and a police establishment of its own. These suburbs contain extensive glass-works, potteries, breweries, foundries, and cotton factories. Besides these more important parts the Barony parish contains numerous other villages and public works connected with the city. A considerable portion of it is laid out in villas and country houses by the merchants and manufacturers of Glasgow; and that part of it which is applied to agricultural purposes, from being liberally supplied with manure from the city, yields much richer crops than the quality of the soil would lead us to anticipate. In various parts of the parish are numerous coal works and free-stone quarries, which are as valuable to the city as they are profitable to the proprietors. Notwithstanding the extent and population of the parish, and the numerous townships and manufacturing villages which it contains, it possesses only one parish church. There are several chapels however in connexion with the established church, and numerous dissenting chapels and meeting-houses, situated in different parts of the parish. The Barony of Gabals, situated on the south side of the river, opposite to the city, contains upwards of 26,000 inhabitants, and is the most extensive and best built of any of the suburbs of Glasgow. The ground on which it stands contains upwards of 400 acres, and originally formed part of the parish of Govan, from which it was disjoined and erected into a separate parish in 1771. From different parts of it having been begun to be built by different proprietors, they have received the different appellations of Hutchesontown, Laurieston, Tradeston, Kingston, and Maxwellton; a small portion only, and that the oldest part, receiving the name of Gorbals. The whole, however, constitutes one barony, and is governed by bailies, and possesses a police establishment. The magistrates of Glasgow as superiors of the burgh, appoint the bailies; and the commissioners of police are chosen by the inhabitants. The burgh contains several fine streets and ranges of houses; the parish church is a beautiful modern structure, erected fronting the Clyde; and a jail and public offices have recently been built on a commodious and elegant plan.

Glasgow Port, a town in Renfrewshire, on the south bank of the Clyde, distant from Glasgow about twenty, and from Greenock two and a half miles. It is built on the Barony of Newark, and owes its origin to the corporation of Glasgow establishing a port and building a

harbour there in 1668. In 1695 it was erected into a parish. The town has a neat appearance, many of the private houses being handsome. In the centre is a rather elegant structure, with a fine spire, appropriated as public offices, reading room, jail, &c. There is a parish church, and two other places of worship in the town. The harbour is good, and a graving-dock is attached, which at the time of its construction was the only one of the kind in Scotland. With the exception of ship-building, sugar-refining, and rope-making, Port Glasgow is almost entirely indebted to the shipping which frequent it for the employment of its population, and in the latter respect the proximity of Greenock has of late years operated unfavorably upon it. By the constitution of the town, it is governed by two bailies and thirteen councillors, one part of which are elected by the corporation of Glasgow, and the other by trustees for the community. By the official returns of the trade of the port for 1826, it appears that 19,498 tons of British shipping, and 1,121 tons of foreign shipping cleared inwards; and 20,610 tons of British, and 1,344 tons of foreign shipping, cleared outwards in that year.

GLASS.

GLASS, *n. s., adj.* & *v. a.*
GLASS'-FURNACE, *n. s.*
GLASS'-GAZING, *adj.*
GLASS'-GRINDER, *n. s.*
GLASS'-HOUSE, *n. s.*
GLASS'-MAN, *n. s.*
GLASS'-METAL, *n. s.*
GLASS'-WORK, *n. s.*
GLASS'-WORT, *n. s.*
GLAS'SY, *adj.*
GLAZE, *v. a.*
GLA'ZIER, *n. s.*

Sax. ȝlæɼ; Dut. *glas;* Fr. *glaise;* as Pezon imagines from glâs, British, green. In Erse it is called *klann*, primarily signifying clean, or clear, being so denominated from its transparency. See the article. The several compound words are applied to the persons who manufacture glass, or the place wherein the operation is conducted. Glass-wort is a plant, the ashes of which are used in making fine glass; several kinds of glasses, as hour-glasses, mirrors, telescopes, &c., wine glasses, &c.: glass-metal is glass in a state of fusion. The two last words are alterations or corruptions of glass and glassier. One whose trade is to make glass windows.

And in an erthen pot how put is al,—
And salt yput in, and also pepere
Beforn these poudres that I speke of here,—
And wel ycovered with a lampe of *glas?*
And of moche other thing which that ther wos?
And of the pottes and *glasses* engluting,
That of the aire might passen out no thing?
Chaucer. The Chanones Yemannes Tale.

And soth to saine, my chambre was
Full well depainted, and with *glas*
Were al the windowes wel yglased
Ful clere, and nat an hole ycrased,—
That to beholde it was grete joie;
For wholly al the story of Troy
Was in the *glaisinge* ywrought thus,—
Id. Boke of the Duchesse.

Whose womb produced the *glassy* ice? Who bred
The hoary frosts that fall on Winter's head?
Sandys.

He was the mark and *glass*, copy and book,
That fashioned others. *Shakspeare. Henry IV.*

I'll see no more:
And yet the eighth appears, who bears a *glass*
Which shews me many more. *Id. Macbeth.*

Man! proud man!
Drest in a little brief authority,
Most ignorant of what he's most assured
His *glassy* essence, like an angry ape,
Plays such fantastick tricks before high heaven,
As make the angels weep.
Id. Measure for Measure.

Methought all his senses were lockt in his eye,
As jewels in crystal for some prince to buy;
Who tendering their own worth, from whence they were *glasst*,
Did point out to buy them, along as you past.
Shakspeare.

To this last costly treaty,
That swallowed so much treasure, and like a *glass*
Did break i' the' rinsing. *Id. Henry VIII.*

Were my wife's liver
Infected as her life, she would not live
The running of one *glass*. *Id. Winter's Tale.*

Sorrow's eye, *glazed* with brining tears,
Divides one thing entire to many objects.
Shakspeare.

Get thee *glass* eyes:
And, like a scurvy politician, seem
To see the things thou doest not.
Id. King Lear.

There is a willow grows aslant a brook,
That shows his hoary leaves in the *glassy* stream.
Shakspeare.

A whorson, *glassgazing*, finical rogue. *Id.*

The crystalline Venice *glass* is a mixture, in equal portions, of stones brought from Pavia, and the ashes of a weed called kali, gathered in a desert between Alexandria and Rosetta; by the Egyptians used first for fuel, and then they crush the ashes into lumps like a stone, and so sell them to the Venetians for their *glassworks*. *Bacon's Natural History.*

Let proof be made of the incorporating of copper or brass with *glassmetal*. *Id. Physical Remains.*

In the valley near mount Carmel in Judea there is a sand, which, of all others, hath most affinity with *glass*; insomuch as other minerals laid in it turn to a *glassy* substance. *Bacon.*

Let there be two delicate cabinets daintily paved, richly hanged, and *glazed* with crystalline glass.
Id. Essays.

No more his rovall self did live, no more his noble sonne,
The golden Meleager now their *glasses* all were run.
Chapman.

Let princes gather
My dust into a *glass*, and learn to spend
Their hour of state—that's all they have—for when
That's out, Time never turns the glass again.
Shirley.

Fill up the bowl there, fill it high,
Fill all the *glasses* there; for why
Should every creature drink but I,
Why, man of morals, tell me why. *Cowley.*

While a man thinks one *glass* more will not make

him drunk, that one *glass* hath disabled him from well discerning his present condition.
Taylor's Rule of Holy Living.

The moon whose orb
Through optick *glass* the Tuscan artist views.
Milton.

The magnet attracteth the shining or *glassy* powder brought from the Indies, usually employed in writing-dust. *Browne.*

For the fine glass we use the purest of the finest sand, and the ashes of chali or *glasswort*; and for the coarser or greener sort the ashes of brake or other plants. *Id. Vulgar Errours.*

Methinks I am partaker of thy passion,
And in thy case do *glass* mine own debility.
Sidney.

I have observed little grains of silver to lie hid in the small cavities, perhaps *glassed* over by a vitrifying heat, in crucibles wherein silver has been long kept in fusion. *Boyle.*

The *glassgrinders* complain of the trouble they meet with. *Id.*

Glass is thought so compact and firm a body, that it is indestructible by art or nature, and is also of so close a texture that the subtlest chymical spirits cannot pervade it. *Id.*

The first *glass* may pass for health, the second for good-humour, the third for our friends; but the fourth is for our enemies. *Temple.*

He spreads his subtile nets from sight
With trinkling *glasses*, to betray
The larks that in the meshes light.
Dryden's Horace.

White, with other strong colours, with which we paint that which we intend to *glaze*, are the life, the spirit, and the lustre of it. *Id. Dufresnoy.*

Like those who survey the moon by *glasses*, I tell of a shining world above, but not relate the glories of the place. *Dryden.*

As when a taper shines in *glassy* frame,
The sparkling crystal burns in glittering flame,
So does that brightest love brighten this lovely dame.
Fletcher's Purple Island.

If our dreamer pleases to try whether the glowing heat of a *glass-furnace* be barely a wandering imagination in a drowsy man's fancy, by putting his hand into it, he may perhaps be awakened into a certainty that it is something more than bare imagination. *Locke.*

Glass bottles are more fit for this second fining than those of wood. *Mortimer's Husbandry.*

Showers of grenadoes rain, by sudden burst
Disploding murderous bowels, fragments of steel
And stones, and *glass* and nitrous grain adust.
Philips.

When thy heart
Dilates with fervent joys, and eager soul
Prompts to pursue the sparkling *glass*, be sure
'Tis time to shun it. *Id.*

Into rabbets the several panes of *glasswork* are set, and fastened by the *glazier*. *Moxon's Mech. Ex.*

The reason of one man operates on that of another in all true oratory; wherein, though with other ornaments he may *glaze* and brandish the weapons, yet is it sound reason that carries the strike home.
Grew's Cosm. Sac.

I remember to have met with an old Roman Mosaic, composed of little pieces of clay half vitrified, and prepared at the *glasshouses*. *Addison.*

The dexterous *glazier* strong returns the bound,
And gingling sashes on the penthouse sound. *Gay.*

Nature's ethereal, human, angel, man,
Beast, bird, fish, insect, what no eye can see;
No *glass* can reach from infinite to thee,
From thee to nothing. *Pope.*

The profit of *glasses* consists only in a small present made by the *glassman*. *Swift.*

And Vanity with pocket-*glass*,
And impudence with front of brass. *Id.*

It hath an apetalous flower, wanting the empalement; for the stamina, or chives, and the embryoes grow on the extreme part of the leaves; these embryoes afterward become pods or bladders, which, for the most part, contain one seed. The inhabitants near the sea-coast cut the plants up toward the latter end of Summer; and, having dried them in the sun, they burn them for their ashes, which are used in making of *glass* and soap. These herbs are by the country people called kelp. From the ashes of these plants is extracted the salt called sal kali, or alkali, by the chymists. *Miller.*

And then, without the aid of neighbour's art,
Performed the carpenter's and *glazier's* part. *Harte.*

James I. granted to Sir Robert Mansell an exclusive patent for making *glass*, in consideration of his having introduced pit-coal instead of wood.
Campbell's Pol. Survey.

Upon my shoulders here I must aver
My muse a *glass* of weatherology. *Byron.*

A mutual language, clearer than the tome they spake
Of his lands tongue, which he would oft forsake
For Nature's pages *glassed* by sunbeams on the lake.
Id.

GLASS, in a general sense, may denote any earthy, saline or metallic substance or compound, which is reduced by igneous fusion to a hard, uniform, brittle mass, having a considerable degree of lustre. It breaks with a conchoidal fracture, passing into splinters. More particularly it denotes that brittle, factitious, transparent substance produced by the vitrification of siliceous earths with salts and metallic oxides.

Some writers have derived the term from *glastrum*, another name with the Roman writers for *vitrum*, a plant with whichi the ancient Britons, as they say, painted or dyed their bodies, and which was of a light blue color; others from *glesum* or *glusum*, the name of amber among the ancient Gauls and Germans, connected with which is our English word *glisten*, to shine; the Swedes and Dutch use *glas* in the same sense as we do. Merret, in his notes on Neri's Treatise on Glass-Making, mentions certain characters or properties of glass, by which it is distinguished from all other bodies: of which we may enumerate these. It is an artificial concrete of salt and sand or stones; it is fusible by a strong heat, and when fused is tenacious and coherent; it does not waste nor consume in the fire; it is ductile when red-hot, and may be fashioned into any form, but is not malleable; and is capable of being blown into a hollow: it is frangible, always diaphanous, whether hot or cold; flexible and elastic: it may be graven, or cut with a diamond, or other hard stones and emery; it receives any color or dye, and admits of being polished: it is the most pliable thing in the world, and that which best retains the fashion given it.

De Neri traces the art of making glass to the times of the patriarch Job, who ranks it amongst the most valuable of earthy productions, chap. xxviii. 17. But this is mere conjecture; the word זכוכית translated crystal, from the root זכך, to

cleanse or purify, admits of various significations, and evidently, from the context, means some precious stone.

It is said that the Egyptians were taught the art of glass-making by Hermes. Among the Greek writers Dr. Falconer contends that Herodotus uses the word ὑαλος, with this signification; but this is very dubious; the historian more probably means the natural crystal, or some transparent natural stone, capable of forming the transparent case he is describing. Aristophanes, Aristotle, Alexander, Aphrodiscus, Lucretius, and St. John the divine, put it out of all doubt that glass was used in their days. Pliny relates, that it was first discovered accidentally in Syria, at the mouth of the river Belus, by certain merchants driven thither by a storm; who being obliged to dress their victuals by making a fire on the shore, where there was great plenty of the herb kali; of the ashes of that plant the salts mixed and incorporated with the sand, or stones fit for vitrification, and thus produced glass; and that, this accident being known, the people of Sidon in the neighbourhood first attempted to form it artificially, and brought glass into use.

Be this as it may, the first glass-houses mentioned in history were erected in Tyre, where the only staple of the manufacture was for many ages; the sand which lay on the shore for about half a mile round the mouth of the Belus being peculiarly adapted to the making of glass; and the wide range of the Tyrian commerce affording an ample channel for the productions of the furnace.

The first time we hear of glass made among the Romans was in the reign of Tiberius, when Pliny relates that an artist had his house demolished for making glass malleable, or rather flexible; though Petronius Arbiter and others assure us, that the emperor ordered the artist to be beheaded for his invention. It is certain that a plate of glass was found at Herculaneum, which was destroyed, A. D. 80; and that glass vessels were made at Rome under Nero. The earliest mention made of glass windows is by Lactantius, in the third century.

Before the conquest of Britain by the Romans, glass-houses had been erected in this island, as well as in Gaul, Spain, and Italy. Hence, in many parts of the country, are to be found amulets of glass, having a narrow perforation and thick rim, denominated by the remaining Britons gleineu naid-reedh, or glass adders, and which were probably in former times used as amulets by the druids. See Anguinum Ovum. It can scarcely be doubted that the Britons were sufficiently well versed in the manufacture of glass, to form out of it more useful instruments than glass beads. History indeed assures us, that they manufactured a considerable quantity of glass vessels. These, like their amulets, were green, blue, yellow, or black, and many of them curiously streaked with other colors. The process of the manufacture was nearly the same with that of the Gauls or Spaniards. The sand of the shores, being reduced to a sufficient degree of fineness by art, was mixed with three-fourths of its weight of nitre, and both were melted together. The metal was then poured into other vessels, where it was left to harden into a mass; and afterwards replaced in the furnace, where it became transparent in the boiling; it was now figured by blowing, or modelling in the lath, into such vessels as they wanted.

According to Bede, artificers, skilled in making glass for windows, were brought over into England in 674, by abbot Benedict, and were employed in glazing the church and monastery of Weremouth. According to others, they were first brought over by Wilfrid, bishop of Worcester, about the same time. Till this time the art of making glass for windows was unknown in Britain; and sash windows did not begin to be common before 1180. Italy had them first; next France, whence they came to England. Venice, for many years, excelled all Europe in the fineness of its glasses; in the thirteenth century, the Venetians were the only people that had the secret of making crystal looking-glasses.

The glass manufacture of England was first established in 1557: the finer sort being made at Crutched Friars, London; the fine flint glass, little inferior to that of Venice, in the Savoy. This manufacture appears to have been much improved in 1635, when it was carried on with pit coal instead of wood; and a monopoly was granted to Sir Robert Mansell, who was allowed to import the fine Venetian flint glasses for drinking. But in the reign of William III. these were made at home with considerable skill.

The first plate glass, for looking glasses and coach windows, was made in 1673 at Lambeth, under the patronage of the duke of Buckingham; who introduced it by the means of Venetian artists, and with amazing success. So that, within the last century and half, the French and English have not only equalled but even excelled the Venetians, and are now no longer supplied from abroad. The French made a considerable improvement in the art of glass, by the method of casting very large plates, till then unknown. This was imitated in Lancashire in 1773, and is now very flourishing.

Of the vitrification of glass generally.—Pure substances vitrify with difficulty, and the glass which proceeds from them is in general dry and very brittle. But the same substances mixed, enter more easily into fusion. Alumine and lime, although unvitrifiable separately, are easily reduced into glass when mixed together. The alkalies facilitate the fusion and vitrification of all the earthy principles. On account of this property, these salts are employed for forming the base of the composition of glass manufactured for our use. Besides the degree of fusibility which the alkalies communicate to the earthy substances, they give to the glass which proceeds from their mixture with the earths a pliability which admits of its being wrought, blown, extended, and even hammered while it is warm and soft. The manufactories where glass is made, are called glass-works. The compositions, the working, and the furnaces, vary in the different manufactories, according to the nature of the glass made in them: hence the va-

rious denominations of bottle-glass, flint-glass, plate-glass crystal-glass, &c. But, whatever may be the nature of the glass to be made, there are certain principles essentially dependent upon science which are applicable to all glass-works, and according to which all the operations are directed. These general principles have for their object every thing relating to the manufacture of the pots or crucibles, to the composition of the substances, to the construction of the furnace, to the management of the fire, and to the manner of working the glass. We shall glance at each of these subjects in succession.

Of the manufacture of crucibles, or glass pots.—Good crucibles ensure the success of a glass-work. This truth can only be felt by those who have appreciated the loss occasioned by pots which break or melt, the loss of time, and the difficulty of replacing them. Clay forms the basis of glass-house pots. But as the qualities of clays are very variable, because they are naturally and constantly mixed in various proportions, with lime, silex, iron, and magnesia, which renders them more or less fusible, the clay must be picked before employing it. The qualities of a good clay are as follow: 1st. It must not vitrify upon an exposure of several days in the hottest place of the furnace. 2nd. It must preserve its form without sinking down, or becoming soft. 3rd. It must be wrought and moulded easily. 4th. It must undergo the action of the fire without contracting, or cracking. 5th. Good clay assumes, upon being fired, a very great hardness and compactness.

When we have ascertained all these qualities in the clay, it must be still picked, in order to separate from it every thing foreign or prejudicial. To this effect it must be carefully picked, in order to take out the pyrites and all the small colored veins, which render it fusible: we may content ourselves with raking together the pieces tinged with ochre, and separating all the coloring principle from them. After having taken away every visible impurity, the clay must be diluted and soaked in water; it is afterwards passed through sieves, in order to separate the coarse, weighty, and insoluble bodies from it. Sand, quartz, or mica, do not sensibly injure the qualities of clay, particularly if they are in small quantity: but mixtures of calcareous earths, plaster, pyrites, and metallic oxides, render clay improper for glass-house pots, as it is material to give to the sides of a crucible such a thickness only as to render it capable of resisting the effects of the substance it contains, and the shocks it receives in the work.

M. Loysel has suggested that we should calculate the tenacity of the clay, by forming small sticks of it in the form of parallelopipedons, which he dries at a temperature of 25° of Reaumur, and one of the extremities of which he reduces to a diameter of six lines. He fastens this extremity in a cubical cavity; and at the distance of eighteen lines he suspends, from one of these sticks, the saucer of a pair of scales, in which he places weights until they produce a fracture in the stick. He observed that good clay, employed for crucibles of three feet diameter by three feet six lines thick, did not break, except with a weight of 56 oz.; and that of a furnace of fusion, of eight feet diameter, by a weight of 24 oz. But clay, employed by itself, contracts too much, and it is mixed for forming the composition of pots with the broken pieces of crucibles, ground, and well cleared of all vitrified matter, or with clay strongly fired. Great care must be taken not to employ sand in forming pots, because the alkali employed in making the glass would act upon the sand, dissolve it, and speedily destroy the crucibles. After having prepared the clay well, it is mixed with the cement formed of ground fragments of crucibles, and a paste is made with it which has such a consistence that a leaden bullet of 4 oz. weight may sink into it completely upon falling from a height taken between sixty-six and eighty-three inches. This paste must be dressed with the greatest care in a proper place, and out of the way of all dust, and the mixture of every foreign substance. When the paste is thus prepared, either the one or the other of the two following processes may be employed for making the crucible. 1st. In some glass-houses they have a wooden mould, furnished in the inside with a strong and well-stretched cloth. Rolls of paste are applied to the interior surface of this cloth, and the frame of the crucible is successively raised, by gradually diminishing its thickness from the bottom to the upper edge. 2nd. In other glass-houses the workman has a round piece of wood, a little broader than the crucible is to be, and he raises with his hand, and without a mould, his crucible upon this kind of foundation. This last method is preferable to the former, because the workman can work his paste at all places, and he leaves no cracks nor crevices in the body of the crucible, and he can join perfectly and uniformly all the parts. This process is particularly necessary in the bottle glass-houses, because this composition corrodes the crucibles more than any other. When the pots are manufactured they are allowed to dry in the shade, at a temperature of 10° or 15° of Reaumur's thermometer. We should equally dread a too strong heat, which might crack the pot; or a too sharp cold, which might freeze it, dampness and currents of air should be also carefully avoided: the apartment which serves as the drying-place should be shut, and very little frequented. When the pots begin to be dry they are enclosed in a close place, where the heat is constantly kept up to 25° or 30° of Reaumur. From this they are brought out to be put in use. For this purpose they are exposed by degrees to a heat which produces redness, and in this state they may be placed upon their seat in the furnace. Prudence requires that they should not be charged with any composition after they are placed upon the furnace until they have undergone the strongest possible heat for twenty-four hours.

Of the construction of glass-house furnaces.—The paste intended for making the bricks of a glass-house furnace is prepared by mixing crude with fired clay, or rather with broken pieces of crucibles: white infusible quartz, or a very refractory sand, are also employed instead of fired clay. In order to pound the pieces of quartz more completely, they are made red-hot, and then thrown

into water. This operation, as is well-known, renders them pulverulent, without hurting their refractory quality. Bricks are sometimes used which have not been fired; these are merely dried in the air to such a degree that a leaden bullet, falling from a height of from twenty-five to forty-five feet, only sinks half its bulk into the brick. The furnace of a glass-house is always erected in the middle of very spacious premises, in order that the working and the surface of it may be easy. The draught of the furnace is effected by means of four currents of air, which enter the hall at separate apertures, and unite at right angles at the grate of the fire. The interior form of the furnace is almost always that of a square, or of a rectangular parallelogram, the broadest sides of which are occupied by the pots, which are supported and fixed on trevets or shelves. The interval between these shelves, or trevets, forms the grate upon which the combustibles are placed. The fire is fed by apertures made in the sides: the pots are charged and emptied by means of openings immediately above them, and which exactly correspond with them, in order that the business may be more easily conducted. The furnace is surmounted or terminated by an arch, which rests upon the two longest sides, and which is full of holes, in order to establish a proper draught, and to give a passage to the flame, which also heats other arches placed before these angles, or above the vault.

Of the substances employed in the composition of glass.—Silex and the alkalies form the base of glass in all countries: the other ingredients are, properly speaking, only accessary for facilitating the flux and purifying the glass, or for giving it any peculiar quality. The purest silices and alkalies form the clearest glass, and it is this composition which forms the basis of all the operations of glass-houses. But silex and alkali exist no where pure; it is only by troublesome, difficult, and expensive processes that we can bring them to this degree of purity. These substances are therefore very generally employed in the state in which nature and commerce afford them. Attention must be paid, however, among the varieties which these two substances present, to choose such as experience has shown to give constantly the production we are desirous of obtaining. In some delicate works such as the making of fine crystal or plate-glass, the alkali of commerce is purified, in order to clear it of all foreign bodies. In general, white sand is the purest, but it is also the most refractory; the colored sands fuse much more easily. Alicant soda holds the first place among the alkalies of commerce. It is therefore most employed in the delicate operations of the glass works. Sicilian ashes, the salicornia, and sea-wrack, are employed in the manufacture of all the common clear glass. Potassa and salt are also well adapted for vitrification: the latter is employed in most of the manufactories of drinking-glasses and crystal-glass, as it is called. In France the ashes of our fires, melted with sand, is the most general composition of bottle-glass. When the sand is very fusible, lixiviated ashes may be employed. I have seen, says M. Chaptal, most excellent bottle-glass formed with lixiviated ashes and river-sand, mixed with equal parts of quartz and rubbish of lava. The salts contained in the alkalies enter into fusion, and swim upon the surface of the metal (as the workmen call it) in the state of a very fluid liquid, which must be carefully taken off with a ladle or skimmer before beginning to work the glass. This precaution is only necessary when sodas are employed highly charged with marine salt. The glass-works where these kinds of soda were used, made a considerable trade of this salt, which was sold by the name of glass-house salt, when the gabelle or salt-tax rose to such an enormous height in France. Glass-house salt is also known by the name of gall of glass, or sandiver; and when the matter is not well melted, or when all the marine salt is not evaporated, it is found dispersed through the glass in small grains, which injure much the beauty and solidity of the article. When we wish to purify soda for delicate operations, it is dissolved in water, in order to separate by a previous operation every thing that may be insoluble; it is afterwards evaporated, and concentrated to 40° of Baume's arcometer, in order to precipitate the foreign salts, which crystallise; the remaining liquor is afterwards concentrated to dryness, and by this means we obtain a very pure salt of soda. We may even obtain it in crystals, by stopping the evaporation at the degree of a syrupy consistence. The proportions of the substances which form the composition of glass vary according to the nature of the sand, the purity of the alkalies, the quality of the glass, and the degree of heat in the furnace. Experience alone must prescribe and determine the most proper composition: the more fusible the sand is, the less alkali it requires; the purer the alkali, the greater is the quantity of sand which is necessary in the composition. In order to facilitate the fusion of the compounds, and to give the glass more ductility, more weight, and less hardness, oxide of lead is added to the composition, in variable proportions, according to the object in view. Minium, or red-lead, is always preferred for this purpose in the manufactories of crystal-glass.

The oxide of manganese is also used, by the name of glass-maker's soap, in order to clear the glass of all coloring matter. Its effect must probably be chiefly ascribed to the facility with which it gives up its oxygen, which combines with the coloring principles, and destroys them. Too much red-lead makes the glass yellow; this defect may be corrected by applying a little oxide of cobalt, which, in its turn, will produce a blue color, if in excess. Too much manganese gives it a violet color, and forms streaks, or violet-colored ribands, in the thick parts of the glass. This fault may be corrected by throwing a combustible body into the melted mass. There are circumstances where a tried composition attains a proper degree of fusion with great difficulty; this may proceed from the draught of the furnace being interrupted, or when the fire is ill managed; in this case, borax, or arsenic, must be resorted to for restoring the fusion. The latter substance is held in the bottom of the pots, until it has evaporated in fumes; it spreads

through the whole mass, agitates it, and hastens the flux of it. Arsenic serves in particular for destroying the green color of glass, besides the advantage it has of facilitating the flux. The glass is colored with the metallic oxides; cobalt makes blue; manganese, violet; glass of antimony, yellow; precipitate of Cassius, purple; chrome, green, &c. Various colors may be obtained by the mixture of these oxides; and we may obtain all the shades we desire.

Muriate of soda and sulphate of soda may be employed, and at times with advantage, in glass-making. A casting is readily obtained of very fine glass, having, when about three or four lines in thickness, a very slight green tinge. Its composition is as follows:—decrepitated muriate of soda 100 parts; slaked lime 100; sand 140; clippings of glass, of the same quality, from 50 parts to 200. Sulphate of soda likewise offers a great economy in its employment. The results are very satisfactory. The glasses made with this salt were of a very fine quality. The following is the composition:—dry sulphate of soda 100 parts; slaked lime 12; powdered charcoal 19; sand 225; broken glass from 50 to 200. These proportions give a rich colored glass, which may be employed with advantage in glass-houses, where a fine quality is sought after. The following is the second way of operating with sulphate of soda; the proportions may be as follows:—dry sulphate of soda 100 parts; slaked lime 266; sand 500; broken glass from 50 to 200. According to this process, it is obviously easy to operate in a regular manner, and to avoid expensive trials in the manufacture.—*Annales de l'Industrie Nationale.*

According to M. Achard, equal parts of lime, magnesia, and silica, melt into a greenish colored glass, hard enough to strike fire with steel. When the magnesia exceeds either of the other two ingredients, the mixture is infusible; when the silica exceeds, the only fusible proportions were, 3 silica, 2 lime, 1 magnesia; and, when the lime is in excess, the mixture usually melts in a strong heat. With mixtures of lime, alumina, and silica, a fusible compound is usually obtained, when the lime predominates. The only refractory proportions were,

Lime . . .	2	3
Silica . . .	1	1
Alumina . .	2	2

Excess of silica gives a glass or porcelain, but excess of alumina will not furnish a glass.

When, in mixtures of magnesia, silica, and alumina, the first is in excess, no fusion takes place at 150°; when the second exceeds, a porcelain may be formed; and 3 parts of silica, 2 magnesia, and 1 alumina, form a glass. From Achard's experiments it would appear, that a glass may be produced by exposing to a strong heat equal parts of alumina, silica, lime, and magnesia. Other proportions gave fusible mixtures, provided the silica was in excess.

M. Westrumb is said to have found, that the salts of potassa and soda, deprived of their water of crystallisation, answer as well as the pure alkali for the manufacture of glass. In order to make an excellent glass, 24 parts of sulphate of soda are thoroughly dried, and mixed with 8 parts of powdered charcoal, and 16 of good white sand. The mixture must be calcined in the drying oven, until the sulphate is dissipated, and is then put into the pots for fusion.—*Annales Gen. de Phys. de Bruxelles*, May 1820.

Of the flux of the substances forming the composition of glass.—The flux of the substances embraces two principal operations; first the fritte; second the fusion. If we throw into the crucible the substance which forms the composition, without having prepared it by a previous strong calcination, the crucibles would be destroyed in a short time, in consequence of the water which would be disengaged on the first impression of the fire; the flux would be almost impossible, in consequence of the greater fusibility of the alkali, which would come to the surface; the glass would be colored, and the paste itself would experience a swelling which would drive it over the crucible. In order to obviate all these inconveniences, the substances undergo the fritte, in all the glass-works, before put into the pots to be melted. The fritte is conducted on the substances either separately or in their state of mixture and composition. The second method is preferable, for the reasons above given. The fritte is executed in furnaces made in the glass-house; and which very often communicate with the melting furnace, from which they receive the heat by apertures made at the base of the great arch, and at the angles. These places are then called fritte arches. The substances are fritted some time, keeping them red-hot, and by this means they often receive a commencement of a pasty fusion, which unites the parts of the composition so as to form one mass. The manufacturers of bottle-glass, already mentioned, give the form of bowls to their composition, in order to roast it more completely. Others throw the composition, when well mixed, upon the bottom of the arch, taking care to strew it very thinly, in order that the calcination may act equally upon all the parts. Previous to putting the composition into the melting-pots, a new activity is given to the fire, and it is stirred three or four hours before charging them. The pots are charged at two and even three times; a fresh quantity of composition is not added until the first quantity is melted. As soon as the pot is filled, the fire is carefully kept up, for a longer or shorter time, according to the fusibility of the composition and the draught of the furnace. Ten or twelve hours are sufficient to melt the whole composition; but, although it is well melted, it is not yet fit for working. It must be allowed to settle, to clear itself of the numberless bubbles which are dispersed through the paste; and this effect can only be produced by keeping the composition at a very liquid fusion for some hours. This operation is called fining. When the glass is thus fined down, or rendered fit for working with, the heat of the fire is allowed gradually to diminish by adding no more coals to it. The vitreous mass then assumes a little more consistency, which facilitates the work.

Of working the glass in glass-houses.—The

working of glass is very simple; but, notwithstanding this, it requires a great deal of practice, and no one can expect to become a good artist in this branch of the business, if he has not acquired the art early in life. Every thing respecting the working of the glass may be reduced to the act of blowing or running it. In blowing the glass, an iron tube about five feet long is used; with this the workman takes out of the pot the quantity of glass necessary for his operation: the air, which he exhales from his lungs through the hollow of the tube into the mass of glass he has taken up, distends it; he afterwards gives this mass, while it is distending, the form and dimensions he wishes. Compasses, scissors, and other iron tools, are employed to shape, pare, or dilate the glass. Care is taken to present it to the furnace as soon as it begins to cool; when again heated, and it begins to melt, it is withdrawn, in order to bestow additional labor upon it. The softness of glass, when it is made red-hot, forms such a contrast to its fragility when it is cold, that it would be difficult to conceive how easily it may be kneaded, soldered, and distended, if we did not see it actually done before our eyes. Much has been said of the malleability of glass; researches have been made in order to recover this important art, which it was thought the ancients possessed; and people have been unwilling to allow that there is no metal more ductile or more malleable than glass, when red-hot; or that this art, supposed to exist among the ancients, is practised among the moderns every day in our glass-houses. Plate-glass is formed by pouring melted glass upon a copper table, the surface of which is very flat, and by passing a level above the melted matter, in order to give the plate a uniform thickness. This operation is very similar to that by which metallic tablets are formed, by throwing melted metal upon sand. In order that the glass may be less brittle, it is necessary that it should be cooled very slowly: this last operation is called annealing. In the large manufactories of bottle-glass, the glass is annealed in furnaces made in the angles of the room where the melting furnace is: these furnaces are red-hot when the glass is deposited in them, and, as soon as they are filled with the glass articles, the apertures are closed, and the heat allowed to subside of itself. In small glass-houses, the annealing furnace is generally placed upon the melting-furnace, or at one side of it, so as to be heated by the current of flame which escapes from the furnace; this is merely, properly speaking, the commencement of a very wide flue, and which insensibly diminishes in width the further it is removed from the fire; so that the glass, deposited at its base, gradually cools as it is drawn towards the extremity. The glass is annealed very imperfectly in this manner, because it cools too quickly.

Of the combustibles employed in glass-works.—Two kinds of combustibles are used in glass-works; wood and coals. The employment of the latter is very advantageous, but it colors the glass by producing a fuliginous matter which is deposited upon the melted mass, and tinges it of a yellow hue. When we wish to make a clear or crystal glass, therefore, we must take the precaution of covering the pots, to which only one aperture must be left, corresponding with the working hole; this is called working with covered pots. When wood is employed, it must be carefully dried; the flux in this case is easier, and the work expedited. Elm, beech, and oak, are the three best woods for a melting-furnace. The resinous woods give out too much smoke. It requires an active and intelligent person to manage the fire of a glass-house; care must be taken neither to choke it with too much fuel, nor to let the heat fall off. It must be fed by renewing the fuel in small quantities at a time, and at short intervals. The weight of clear glass to that of water, is :: 23 : 10. That of argil and aikali :: 25 : 10. That of lime and alkali :: 27 : 10. The metallic oxides add to its gravity.

Such is very much the practice in France. We shall now detail the processes adopted in our own country, and describe the materials made use of in the several manufactures. It will have been observed that glass contains, invariably, two essential ingredients, silex, and an alkali; these are the only things necessary; these, as we have seen, were the only substances from which glass was made accidentally on the shores of the river Belus; the sand existed on the spot, and the saline substance was the substance in contact with the sand, and made use of as supports to the kettles in which the provisions were to be dressed. The fire, rendered fierce by being exposed to the open air, soon united the sand and the saline substances in fusion, and produced that glass which was the object of so fortunate and important a discovery.

Though sand and a saline substance are all that are absolutely necessary in the manufacture of glass, yet several other substances are likewise made use of for particular purposes, among which may be particularly noticed, lime, in the form of chalk, that is, a combination of lime and carbonic acid, or what is chemically denominated, a carbonate of lime, borax, the oxides of lead, manganese, arsenic, and nitre. A brief account of these will be necessary to render this article complete: though they are treated of alphabetically under their respective heads.

Silex may be found in almost all parts of the known world; but of different kinds, and of various degrees of purity, and such will be selected in the manufacture as is adapted to the nature and fineness of the glass required. The siliceous material generally used in this country is sea-sand, which it is well known consists of minute rounded grains of quartz, which are sufficiently small to be used without any other preparation than that of washing. Sand, well adapted for the manufacture of glass, is found on the coast of Norfolk, near Lynn, and likewise on the western shores of the Isle of Wight. Common black gun-flints afford a very pure kind of silex, which before they are used must be heated red-hot, and instantly quenched in cold water The heat whitens the flints, and the water splits them in every possible direction after which they may be ground without difficulty, in mills constructed for this kind of work. This ground flint is chiefly confined to the manu-

factures of the potteries, and is but seldom resorted to in glass-works. The alkali used in the manufacture of glass is either soda or potash. It is used in the state of a carbonate, though it is evident that the carbonic acid gas is driven off in the process, and the glass is a compound of silex and pure alkali, and not an alkaline carbonate. The finest flint-glass requires the best pearl-ashes, purified by solution and evaporation; but inferior glass is made with coarser substances, as barilla, where it is abundant, with common wood-ashes, and with kelp. These alkalies, it is true, are impure; but this does not prevent their dissolving the silex into a very good and perfect glass, for the very impurities, consisting of neutral salts, lime, and other earths, assist in vitrification. Glass made from these alkalies has always a greenish tinge, owing to the iron contained in them. Lime, in the form of chalk, is used only in small proportions, because if much is used, the glass becomes opaque and milky on cooling, though it was perfectly transparent when hot: hence the reason of what is called smoky glass among the glaziers. The proper proportions are, to 100 parts of silex and alkali, only 6 or 7 of quick-lime can be added. Lime, though mischievous, if used too liberally, has its particular uses when properly proportioned; for, besides affording a cheap flux, it renders the glass easier to work, and much less liable to crack by sudden and violent changes of temperature. Borax is the best flux that is known; its high price is the only objection to its more general use; this prevents it from being used in common glasses, but it is never omitted in the finer kinds of plate glass, and those other articles of manufacture that are required to be clear and free from specks and bubbles. Borax renders all vitrescent compounds into which it enters remarkably thin-blowing, as the phrase is, and therefore peculiarly adapted for being cast in a mould, which is the way plate-glass is manufactured. A very small quantity of borax will correct any deficient strength in the alkali. The oxides of lead, of which litharge and minium are the only ones employed in the large way, are of great importance in glass-making. Litharge, of itself, melts into a very dense, clear, yellow, transparent glass, fusible at a low degree of heat; and when melted it acts so powerfully on all kinds of earthen vessels, as to run through the common porous crucibles in a very short time, like liquor through a filter, but vitrifying and corroding the bottom of the crucible in its passage. Litharge, therefore, is not only a most powerful flux to all earthy mixtures, but imparts to glass the valuable qualities of greater density, and greater power of refracting the rays of light; of bearing any sudden changes of temperature; of greater tenacity when red-hot, and therefore easier to be worked. Most of the finer glasses contain a considerable quantity of this oxide, particularly the London flint-glass, or that species which is used for most of the purposes of the table, for lustres, and other ornamental works, which, when cut into various forms, display such beauty and brilliance, as to present a most dazzling appearance, for artificial gems and for most optical purposes. Glass, however, in which there is much lead, has the defect of being extremely soft, so as to be readily scratched and injured by almost every hard body it rubs against. It is likewise so fusible, that thin tubes made of it will bend with ease in the flame of a candle, and will sink down into a shapeless mass, at a moderate red-heat. This quality is often very useful for chemical purposes, but in other cases it is a great defect. If lead is in excess, there is great danger that the glass will be corroded by the contact of acrid liquors.

The black oxide of manganese has been long used in this manufacture: its ancient name was glass soap, which proves that it was used for the purpose of clearing the glass from any accidental foulness of color, which it might otherwise contract from the impurity of the alkali or other materials employed. The oxide of manganese is a very powerful flux for earthy matters, which is seen in the result of all attempts to reduce it to a reguline state in the usual way of combining with a saline carbonaceous flux, and heating in a naked crucible. Not a particle of the oxide is reduced in this way, but the crucible constantly runs down in a heat sufficiently intense for the reduction of the manganese, together with all its contents, into a green flag. The only way known at present of reducing this oxide, is to enclose it without any saline or earthy addition in a crucible lined with charcoal, and apply to it a very intense heat. Manganese, like lead, gives a density to glass, and has, like that metal, a tendency to settle to the bottom of the pots where it accumulates, and, being here out of the way of most of the discoloring additions, it yields a purple tinge immediately adhering to the bottom, and partly corrodes the pots, so that, when they are worn out and broken up, they are thickly incrusted with a purple vitrescent flag, easily separable by the hammer.

The white oxide of arsenic is another flux used in this manufacture: this is volatile in the fire in proportion as it approaches the metallic state, and hence it is of great advantage to employ nitre to oxygenate it more highly, and to render it more fixed. Arsenic is a powerful and a cheap flux, but it must be used only in great moderation, as taking a longer time to mix intimately with glass, and, allowing it to be perfectly clear, than almost any other additions that can be employed. Glass, in which arsenic is not most intimately combined, has a milky hue, which increases by age; and when this oxide is in excess, the glass tends to deliquesce, and gradually to become soft, and at length a decomposition will take place. Drinking glasses, and others used for purposes connected with our food, should not be made with this flux, as being one of the most dangerous poisons. As arsenic is entirely volatilised, when in contact with any carbonaceous matter, another use has been made of it, which is to disperse the carbon that may remain in the glass pot, owing to any defect in the calcination of the alkali, or any other more latent cause. When this happens small lumps of white arsenic are thrust to the bottom of the glass pots, and stirred in with the contents, and the fumes of the arsenic, meeting with the existing carbon

diffused through the glass, unites with it, is speedily volatilised, and the glass is left entirely free both from the carbon and the arsenic that was added.

Nitre is used, in glass-making, only in small quantities, and is an accessary ingredient for particular purposes. Nitre is readily decomposed, giving out a large quantity of oxygen, some nitrous gas, and azote, leaving behind its pure potash. It is of great service in destroying any carbonaceous matter in the ingredients of glass: it is also useful in fixing arsenic, and in keeping up the tinging power communicated by manganese. The same circumstance, of keeping metallic oxides up to their highest state of oxigenation, also renders this salt often useful, sometimes indeed essentially necessary, in the preparation of certain colored glasses.

While glass is in fusion, the substances which enter into its composition may be considered as combined with each other, so as to form a homogeneous mass similar to water, holding in solution a variety of salts. If it be cooled down very gradually, the different tendency of the constituents to assume solid forms, at peculiar temperatures, will cause them to separate successively in crystals, in the same manner as salts held in solution in water assume the form of crystals, when the liquid is slowly evaporated. But, if the glass be rapidly cooled down to the point of congelation, the constituents have not time to separate in succession, and the glass remains the same homogeneous compound as while in a state of fusion; just as would happen to a saline solution if suddenly exposed to a degree of cold sufficient to congeal it completely. Hence it should seem that the vitreous quality depends entirely upon the fusibility of the mixture, and the suddenness with which it is cooled down to the point of congelation. The solid substance is precisely the same, as to its chemical composition, as if it were still in a state of fusion; the sudden abstraction of heat having been the means of fixing the constituents before they had time to assume a new arrangement. All fusible mixtures, as we have seen, of the earths with fixed alkalies, &c., may be made at pleasure to assume the form of glass, or the appearance which characterises stone or porcelain, according to the rate of cooling; and glass may be deprived of its vitreous form merely by fusing it, and cooling it down with sufficient slowness to enable the constituents to separate in succession. Experiments have been made on this subject by Reaumur and Lewis, who have both pointed out the method of converting different kinds of glass into an opaque, white, hard, refractory substance like porcelain. Lewis, however, demonstrated, by a variety of experiments, that it is not every kind of glass that can be converted into porcelain. He succeeded only with those that were composed of a variety of constituents, because such glasses alone contain ingredients that become solid in succession. Green glass, which is apt to acquire a crystallised form, succeeded the best with him, and he found that the temperature, which was peculiarly adapted to the change, is that in which the glass is softened without being melted. It was the curious experiment of Sir James Hall on basalt and greenstone that first led to an explanation upon what the vitreous state of substances depends. He found that glass, consisting of various earthy bodies, loses its vitreous state, and assumes that of a stone, if more than a minute or two elapses while it is cooling down from the complete fusion to the point at which it congeals.

There are, it is well known, different kinds of glass in common use in this country, adapted to various purposes. The finest is plate-glass, of which looking-glasses are manufactured: flint-glass, or, as it is frequently denominated, crystal, is not much behind the plate-glass in the excellence of its qualities. These are both perfectly transparent and colorless, heavy, and very brilliant. They are composed of fixed alkali, pure silex, calcined flints, and litharge. The proportions, as far as can be obtained, will be given hereafter. Flint-glass contains also much oxide of lead: though it is solid, it does not appear to be absolutely impervious to gaseous bodies, at least when heated nearly to the melting point. Dr. Lewis surrounded a piece of it with charcoal powder, and kept it some time in a heat not quite sufficient to melt it. The lead was revived in drops through the whole substance of the glass. Dr. Priestley ascertained, that glass tubes filled with hydrogen gas, and heated, became quite black, from the revival of the lead. When alkaline hydrosulphurets are kept in glass phials, the inside is coated with a black rust, which is, in fact, the lead separated by the sulphur from the glass.

Crown-glass is made without lead; it is, therefore, much lighter than flint-glass. It consists chiefly of fixed alkali, fused with siliceous sand. Bottle-glass is the coarsest and cheapest kind, and in this but little fixed alkali enters into the composition. It consists of an alkaline earth, combined with alumine and silica. In this country it is composed of sand and the refuse of the soap-boiler, which is the lime employed in rendering his alkali caustic, and of the earthy matters with which that alkali was contaminated. Some of this kind of glass was analysed by M. Vauquelin, and was found to be composed of

Silex	57
Lime	31
Alumine	4
Oxides of manganese and iron	4
	96
Loss . .	4
	100

A small portion of potassa was also discerned, but it was too small to admit of being appreciated.

Of the different species of glass, the most fusible is flint-glass, and the least fusible bottle-glass. Flint-glass melts at the temperature of 19° Wedgwood; crown-glass at 30°, and bottle-glass at 47°. The properties that distinguish good glass are as follows. It is perfectly transparent, and its hardness very considerable; its specific gravity varies from 2·3, to 4, according to the materials of which it is composed. When cold,

it is brittle; but when at red-heat, it is one of the most ductile bodies known, and may be drawn into threads nearly invisible to the naked eye. It is almost perfectly elastic, and of course is one of the most sonorous of bodies. Few chemical agents have any action upon it; but fluoric acid dissolves it with great rapidity.

Although glass is chiefly made of sand, flints, fixed alkalies and metallic oxides, yet there are various other substances which frequently enter into the composition, and which should therefore not be wholly omitted in the description. Polverine or Rochetta is one that is procured from the Levant, and is prepared from a plant called kali, which is cut down in the summer, dried in the sun, and burnt in heaps either on the open ground or on iron grates; the ashes falling into a pit grow into a hard mass, and are fit for use when purified. Kelp which grows upon our coasts, and the ashes of the fucus vesiculosus furnish a similar salt: to these we may add the barilla of Spain.

To prepare ashes for making glass.—Take what quantity and what sort of wood-ashes you will, except those of oak; have a tub ready with a spigot and faucet towards the bottom, and in this tub put a layer of straw, and fling your ashes on it; then pour water upon them and let the ashes soak thoroughly until the water stands above them: let it thus continue over night, then draw out the faucet and receive the lie in another tub, put under the first for this purpose: if the lie looks troubled, pour it again on the ashes, and let it settle until it is clear and of an amber color. This clarified lie put by, and pour fresh water on the ashes; let this also stand over night; then draw it off, and you will have a weak lie, which, instead of water, pour upon fresh ashes; the remaining ashes are of use in the manuring of land. After you have made a sufficient quantity of lie, pour it into an iron caldron, bricked up like a brewing or washing copper, but let it not be filled above three parts full. On the top of the brickwork place a little barrel with lie; towards the bottom of which bore a hole, and put a small faucet in, to let the lie run gently into the caldron, in a stream about the roundness of a straw; but this you must manage according to the quantity of lie, for you ought to mind how much the lie evaporates, and make the lie in the barrel run proportionally to supply that diminution. Care must be taken that the lie do not run over in the first boiling; but, if you find it will, put some cold lie to it, and slacken the fire, and let all the lie boil gently to a dry salt: when this salt is cold, break it and put it into the calcar, and raise your fire by degrees until the salt is red-hot, yet so as not to melt it. If you think it calcined enough, take out a piece and let it cool, then break it in two, and if it is thoroughly white, it is done enough; but if there remains a blackness in the middle, it must be put in the calcar again, until it comes out completely white. If you will have it still finer, you must dissolve it again, filtrate it, boil it, and calcine it as before: the oftener this is repeated the more will the salt be cleared from the earthy particles, and it may be made as clear as crystal and as white as snow. Of this may be made the finest glass possible. According to Dr. Merret, the best ashes in England are burnt from thistles and hop-stalks, after the hops are gathered: and among trees the mulberry is reckoned to afford the best salt. The most thorny and prickly plants are observed to yield better and more salt than others; also herbs that are bitter, as hops, wormwood, &c. Tobacco stalks, when burnt, produce likewise plenty of salt: and it is observed that fern ashes yield more salt than any other ashes. Dr. Thomson, to whose admirable work on chemistry we have been indebted for part of this article, says the fullest account of glass-making is to be found in a treatise by Neri, an Italian. Dr. Merret, an Englishman, translated it into Latin, and enriched it with notes. Kunkel translated this Latin edition into German, with additions, which were the result of his own numerous experiments on glass-making. Kunkel's work was translated into French in 1752. An elaborate account of glass-making has been published in the Arts et Metiers; and since that a small volume on glass-making has been written in French by Loysell.

To make the glass frit.—Take white silver sand, wash it, and separate all the impurities from it, and let it dry, or rather calcine it. Of this take sixty pounds, and of prepared ashes thirty pounds, mix them well together, then set them in the melting furnace; the longer it is melting, the clearer will the glass be made. If it stands for two days and two nights, it will be fit to work with, or to tinge with what color you please. Before you work it, add forty pounds of lead and half a pound of manganese to it. Or take ashes, prepared as above, sixty pounds, of prepared silver sand 160 pounds, arsenic four pounds, white lead two pounds, clear dry nitre ten pounds, borax two pounds; mix all well together, and proceed as has been directed, and you will have a beautiful crystal.

Of glass-blowing.—Glass-blowing is the art of forming vessels of glass. This term, however, is exclusively applied to those vessels which are blown by the mouth. The operation is exceedingly simple: the workman has a tube of iron, the end of which he dips into a pot of melted glass, and thus gathers a small quantity of glass on the end of it; he then applies the other end of the tube to his mouth, and blows air through it: this air enters into the body of the fluid glass, and expands it out into a hollow globe, similar to the soap-bladders blown from a tobacco-pipe. Various methods are used to bring these hollow globes into forms of the different utensils in common domestic use. The first and greatest of the glass-blower's implements is the furnace, which consists of two large domes set one over the other; the lower one stands over a long grating (on a level with the ground), on which the fuel is placed; beneath the grate is the ash-pit, and a large arch leading to it conveys air to the furnace. In the sides of the lower dome, as many holes or mouths are made as there are workmen to make use of the furnace, and before each mouth a pot of melted glass is placed. The pots are very large, like crucibles, and will hold from 300 to 400 cwt of liquid glass: they

are supported upon three small piers of brick-work, resting on the floor of the furnace. The form reverberates the flame from the roof down upon the pots, and they are placed at some distance within the furnace, that the flame may get between the wall and the pots. The upper dome is built upon the other, and its floor made flat by filling up, round the roof of the lower dome, with brick-work; there is a small chimney that opens from the top of the lower dome into the middle of the floor of the upper one, which conveys the smoke away from it, and a flue from the upper dome leads it completely from the furnace. The upper dome is used for annealing the glass, and is exactly similar to a large oven; it has three mouths, and in different parts a small flight of steps leads up to each. A green-glass furnace is square; and at each angle it has an arch for annealing or cooling glasses or bottles. The metal is wrought on two opposite sides, and on the other two they have their colors, into which are made linnet holes for the fire to come from the furnace to bake the frit, and to discharge the smoke. Fires are made in the arches to anneal the work, so that the whole process is done in one furnace. These furnaces must not be of brick, but hard sandy stones. In France they build the outside of brick; and the inner part, to bear the fire, is made of a sort of fuller's earth or tobacco-pipe clay, of which they also make their melting pots. In Britain the pots are usually made of Stourbridge clay. It is observed, that the roughest work in this art is the changing the pots when they are worn out or cracked. In this case the great working hole must be uncovered; the faulty pot must be taken out with iron hooks and forks, and a new one must be speedily put in its place through the flames (for glass-furnaces are always kept burning) by the hands only. In doing this the man guards himself with a garment made of skins, in the shape of a pantaloon, that covers him all but his eyes, and is thoroughly wetted all over: his eyes are defended by proper shaped glass of a green color.

We now come to describe the smaller implements, which are as follows:—1. A bench, or stool, with two arms at its ends, which are a little inclined to the horizon. 2. A pair of shears, or rather pliers, formed of one piece of steel: they have no sharp edges and spring open of themselves if permitted. 3. A pair of compasses to measure the work, and ascertain when it is brought to the proper size. 4. A pair of common shears for cutting soft glass. 5. A blowing-pipe, which is a wrought-iron tube, three or four feet long, covered with twine at the end by which it is held. We may now explain the use of these tools in the manufacture of some vessel, as a lamp, &c. The operation is conducted by three workmen. The first takes the blowing-pipe, and after heating it to a red-heat, at the mouth of the furnace, dips it into the pot of melted glass, at the same time turning it round that it may take up the glass, which has then much the consistence of turpentine; in the quantity of metal he is guided by experience, and must proportion it to the size of the vessel to be blown; he then brings it from the furnace to the stool, and rolls the lump of glass upon it to bring it to a round form, after which he blows through the pipe, resting the glass upon an iron plate behind the stool and rolling it backwards and forwards. The blowing makes the glass hollow, and he has several methods of bringing it to a proper shape to be worked; by simply blowing, it would assume a figure nearly globular; if he wants it any bigger in the equatorial diameter, he lays the pipe on a hook driven into the side of the stool, and turns it round very quickly; the centrifugal force soon enlarges it in the equator. If, on the other hand, he wishes to lengthen its polar diameter he holds the pipe perpendicular, the glass hanging downwards, its weight lengthening it; and to shorten the polar diameter he holds the pipe upright, the glass at the top; by blowing through the pipe the capacity is increased, and the thickness of the glass of the vessel diminished. We now suppose that, by a very dexterous application of the above methods, the workman has brought it to a proper shape; he now carries it to the mouth of the furnace, and holds it in to get a fresh heat (for by this time it is become too stiff to work easily), taking care to turn it round slowly, that it may not alter its figure. The vessel in this stage is delivered to the second, or principal workman, the other two being only assistants; he is seated upon the stool, and lays the blowing-pipe with the glass at its end across its arm, and with his left hand rolls the pipe along the arms, turning the glass and pipe round at the same time; in his right hand he holds the pliers, whose blades are rubbed over with a small piece of bees'-wax, and as the glass turns round he presses the blade of the shears against it, following it with the shears as it rolls, at the end or side as occasion requires, until he has brought it to the proper size, which he determines by the compasses, though not materially altering its figure, the first workman kneeling on the ground, and blowing with his mouth at the end of the pipe when directed by his principal. The third workman now produces a small rod, which is dipped into the melting-pot to take up a small piece of metal to serve as cement; the end of this rod he applies to the centre of the glass just opposite the blowing pipe, the principal workman directing it by holding its end between his pliers; the rod by the small piece of glass on its end immediately sticks to the glass vessel, and the third workman draws it away, both workmen turning their rods round, but in contrary directions; this operation forms a short tube on the end. The principal workman then takes the short tube between the blades of a pair of pliers exactly like the others, but which are not covered with bees'-wax, the cold of these pliers instantly cracks the glass all round, and a very slight jerk struck upon the rod breaks it off. A hole is now made in the end of the glass, which is enlarged by the pliers while the glass is turned, until the neck is brought to the proper size and length to fit the brass cup as before described, and the inferior half of the lamp is brought to its shape and size in the same manner. In order to form the upper half, the third workman has in the mean time been preparing a round lump of glass on the end of one

of the rods, which he applies hot to the end of the neck, it being guided by the principal workman, and it immediately holds tight; he then breaks off the other neck by the cold pliers, and thus separates it from the blowing-pipe. The glass is now heated a third time, and brought from the furnace to the principal workman, who enlarges the small orifice at the end by turning it round, and holding the pliers against it until he enlarges it to the right shape: it is now finished, and the third workman takes it to a stool strewed over with small coals; he rests the rod upon the edge of the stool, and with a file files the joint at the bottom neck: it soon breaks off and the lamp falls upon the coals, the distance being so very small as to be in no danger of breaking; a boy now puts the end of a long stick into the open mouth of the glass, and thus carries it to the annealing oven, where it remains some hours; when taken out it must be cooled gradually, and is fit for sale.

About forty-six years ago a Bohemian manufacturer first attempted to *incrust* in glass small figures of a grayish clay. The experiments which he made were in but few instances successful, in consequence of the clay not being adapted to adhere properly to the glass. It was, however, from the Bohemian that the idea was caught by some French manufacturers, who, after having expended a considerable sum in the attempt, at length succeeded in incrusting several medallions of Buonaparte, which were sold at an enormous price. From the extreme difficulty of making these medallions, and their almost invariably breaking while under the operation of cutting, very few were finished, and the manufacture was on the point of being abandoned, when it was fortunately taken up by a French gentleman, who, with a perseverance not less honorable to himself than in its results advantageous to the arts, prosecuted a series of experiments, by which, in a few years, he brought the invention to a state of great improvement. The French have never succeeded, however, in introducing it into articles of any size, such as decanters, jugs, or plates; but have contented themselves with ornamenting smelling-bottles and small trinkets: nor had the invention been applied to heraldry, or any other useful purpose, antecedently to the recent improvements upon the art of this country.

England has always been famed for bringing to perfection, and directing to a useful application, the crude inventions of other countries. A patent has recently been taken out by Mr. Pellat of St. Paul's Church-yard for ornamental incrustations, called *crystallo ceramic*, which bids fair to form an era in the art of glass-making. By the improved process ornaments of any description, arms, cyphers, portraits, and landscapes, of any variety of color, may be introduced into the glass, so as to become perfectly imperishable. The substance of which they are composed is less fusible than glass, incapable of generating air, and at the same time susceptible of contraction or expansion, as, in the course of manufacture, the glass becomes hot or cold. It may previously be formed into any device, or figure, by either moulding or modelling; and may be painted with metallic colors, which are fixed by exposure to a melting heat. The ornaments are introduced into the body of the glass while hot, by which means the air is effectually excluded, the composition being actually incorporated with the glass. In this way every description of ornamental glass ware may be decorated with embossed white or colored arms or crests. Specimens of these incrustations have been exhibited, not only in decanters and wine-glasses, but in lamps, girandoles, chimney-ornaments, plates, and smelling-bottles. Busts and statues on a small scale, caryatides to support lamps or clocks, masks, after the antique, have been introduced with admirable effect. The composition used in the patent incrustation. is of a silvery appearance, which has a superb effect when introduced into richly cut glass. Miniatures, however, may be enamelled upon it, without the colors losing any of their brilliancy; and thus, instead of being painted on the surface of the crystal, may be embodied in it.

A most important advantage to be derived from this elegant invention respects the preservation of inscriptions. Casts of medals and coins present no equal security for perpetuating them. The inscription, when once incrusted in a solid block of crystal, like the fly in amber, will effectually resist for ages the destructive action of the atmosphere.

Of making plate-glass.—The materials of the finest plate-glass are white sand, soda, and lime, to which are added manganese and zaffre, or any other oxide of cobalt for particular coloring purposes. The sand is of the finest and whitest kind, and is previously passed through a wire sieve of moderate closeness into water, where it is well stirred and washed till all dirt and impurity are got rid of. The sharpest grained sand is preferred, and indeed it is found that the grains of moderate size melt with the alkali sooner than either the very fine dust or the larger fragments. The alkali used is always soda, and there seems good reason to prefer this to potash, as glasses made with soda are found to be softer and to flow thinner when hot, and yet to be equally durable when cold. Besides, the neutral salts with the basis of soda, which constitute the glass-gall in this instance, such as the muriate and sulphate of soda, appear to be dissipated more readily by the fire than the corresponding salts of potash. Lime is of considerable use, and adds much to the fusibility of the other materials, supplying in this respect the use of litharge in the flint glass. Too much lime, however, impairs the color and solidity of the glass. The coloring, or rather discoloring, substances used are azure, or cobalt blue, and manganese. The latter is here in the state in which its effect is that of giving a slight red tinge, which mixes with the blue of the cobalt, and the natural yellow of the other materials; and if properly proportioned they neutralize each other so that scarcely any tint remains. Besides these ingredients there is always a great quantity of fragments of glass arising from what is spilt in the casting and the ends cut off in shaping the plates, which are made friable by quenching in water when hot, and used in this state with the fresh materials. Of the above materials the

sand, soda, lime, and manganese are first mixed together with great care, and are fritted in small furnaces built for this purpose, the heat being gradually raised to a full red-white, and kept at this point with frequent stirring till the materials undergo no further change, nor give any kind of vapor. The azure and the glass fragments, being already perfectly vitrified, are not added till towards the end of the process, which lasts about six hours. The glass-house for this manufacture differs in several particulars from the common houses for blowing glass, being about eighteen feet long and fifteen wide, made of good bricks. They are particularly distinguished from the common furnaces by containing two kinds of crucibles; the larger ones, called 'pots,' are in the form of an inverted and truncated cone, and in these the glass is melted. The others are smaller, called 'cuvettes.' Another essential part of this furnace is the flat table (of which there is one corresponding with each pot) on which the glass is cast. These tables are of copper-plate, about ten feet by six, supported by masonry; and contiguous to each, on the same level, are flat ovens heated from underneath, upon which the glass when cast and sufficiently cooled may be slid without difficulty from off the table, and then annealed. The tops of the flat oven and the table are on a level with the corresponding opening of the furnace, whence the cuvettes are withdrawn. When the glass is throughly melted, and fine, the cuvette is filled in the following way: the workman takes a copper ladle about ten inches in diameter, and fixed to an iron handle seven feet long, plunges it into the glass-pot, brings it up full of melted glass and empties it into the cuvette, the ladle being supported at the bottom by a strong iron rest held by two other workmen, lest the red-hot copper should bend and give way with the weight of the glass within. The cuvette being filled is suffered to remain in the furnace for some hours, that the bubbles formed by this disturbance of the glass may have entirely disappeared, and the samples taken out from time to time become quite clear and limpid. The door of the furnace is now opened, the cuvette is slid out and pulled upon a low iron cradle, and immediately drawn on to the side of the copper table, where it is hoisted by a tackle and iron chains, and overset upon a table, on which a thick flood of melted glass flows and spreads in every direction to an equal thickness. It is then made quite smooth and uniform at the surface, by passing over it a heavy hollow roller or cylinder of copper made true and smooth by turning, after it is cast, and weighing about 500 pounds. At the same time, the empty cuvette is returned by the iron cradle to its proper place within the furnace The number of workmen required for the whole process of casting is at least twenty, each of which has his separate employment. The plate being cast, the inspector examines whether there are any bubbles on any part of the surface, and if found, the plate is immediately cut up through them. The plate being now cool is slid by an iron instrument from the casting table to the contiguous annealing oven, previously well heated, and is carefully taken up and ranged within it. Each oven will contain six entire plates, and, when full, all the openings are stopped with clay, and the plates allowed to remain there for ten days or a fortnight, to be thoroughly annealed. When fit to be taken out of the annealing oven they are sent away to receive all the subsequent operations of polishing, silvering, &c.; but first the edges are cut smooth and squared. This is done by a diamond, which is passed along the surface of the glass upon a square ruler in the manner of glaziers, and made to cut into the substance of the glass to a certain depth. The cut is opened by gently knocking with a small hammer on the under side of the glass just beneath, and the piece comes off, and the roughnesses are removed by pincers The plate is then finished as far as the glass-house business is concerned. The glass is now to be polished, which is done with sand and water; the glass being first fastened down to a wooden frame, with plaster of Paris, the operation is performed by means of another glass fastened in a frame, which is made to rub upon the other, wet sand being interspersed between the two. As the surfaces of the plates wear down, the sand is used finer and finer. Emery is next used of two or three degrees of fineness, which brings the glass to an even surface, but it is still perfectly opaque. To render it transparent, colcothar, which is the residue left in the retorts of the aquafortis makers, is applied. The polishing instrument is a block of wood, covered with several folds of cloth and carded wool, so as to make a firm elastic cushion. This block is worked by the hand; but, to increase the pressure of the polisher, the handle is lengthened by a wooden spring, bent to a bow three or four feet long, which, at the other extremity, rests against a fixed point to a beam placed above. The plate is now fastened to a table with plaster, covered with colcothar, and the polisher begins his operation by working it backwards and forwards over the surface of the plate till one side is done; then the other is to be polished in the same manner.

Crown-glass is the name given to the best window glass, the composition of which varies very considerably: but a good glass of this kind may be made with 200 parts of soda, 300 of fine sand, 33 of lime, and from 250 to 300 of the ground fragments of glass that has already been worked. A small quantity of arsenic is sometimes added to facilitate the fusion. Zafre, or the oxide of cobalt, with ground flint, is often used to correct the dingy yellow which the inferior kind of crown-glass naturally acquires. The manufacture of the common window glass, though made by blowing, is carried on very differently from that of the common flint glass articles, as the object is to produce a large flat and very thin plate, which is afterwards to be cut by the glazier's diamond into the required shapes and sizes. It is difficult to convey to the reader a proper and precise idea of the process by mere description, but it may be mentioned, that the workman takes a large mass of glass on the hollow iron rod, and by rolling it on an iron plate, and swinging it backwards and forwards, causes it to lengthen by its own weight into a cylinder, which is then rendered hollow by blowing with a force

of breath till it is brought out to the requisite thickness. The hollow cylinder is then opened by holding it to the fire, which by expanding the air confined within it (the hole of the iron rod being stopped) bursts it at its weakest part; and when still soft it is ripped up through its whole length by iron shears, opened out into a flat surface, and then it is finished by annealing as usual.

Common green bottle glass is another kind, which is made almost entirely of sand, lime, and sometimes clay, alkaline ashes of any kind, according as cheapness or convenience direct, and more especially of kelp in this country; of barilla, varec, and the other varieties of soda, in France; and of wood ashes in many parts of Germany, and in North America. The following composition has been given as a good and cheap material for bottle-glass, 100 parts of common sand, 30 of varec (a coarse kind of kelp made on the western coasts of France) 160 of the lixiviated earth of ashes, 30 of fresh wood ash, 80 of brick clay, and about 100 of broken glass. Bottle-glass is a very hard, well vitrified glass, not very heavy relatively to its bulk, and being fused at a very high degree of heat, and from other circumstances, it resists the corrosive action of all liquids much better than flint-glass. Besides being used for wine and beer bottles, it is much employed for very large retorts, subliming vessels, and other processes of chemistry, for which it is admirably adapted, being able to bear as much as a pretty full red-heat, without melting or sinking down into a shapeless lump.

Composition for white and crystal-glass.—To make crystal-glass, take of the whitest terso, pounded small, and sifted as fine as flour, 200lbs.; of the salt of polverine 130lbs.; mix them together, and put them into the furnace called the calcar, first heating it. For an hour keep a moderate fire, and keep stirring the materials with a proper rake, that they may incorporate and calcine together; increasing the fire for five hours; after which the matter is taken out, being sufficiently calcined, and is called frit. After this, remove it immediately from the calcar to a dry place, and cover it up from dust, for three or four months. Now, to make the crystal glass, take of the above crystal frit, called also bollito, and set it in the melting pots in the furnace, adding to it a due quantity of manganese; when the two are fused, cast the flour into fair water, to clear it of the salt called sandiver, which would otherwise make the crystal obscure and cloudy. This washing must be repeated again and again, till the crystal be fully purged; or this scum may be taken off by proper ladles. Now set it to boil for four, five, or six days; which being finished, see whether it have manganese enough, and, if it be yet greenish, add more manganese at discretion, by little and little at a time, taking care not to over dose it, because it will incline it to a blackish hue. Let it clarify, and become of a shining hue; which done, it is fit to be used, and blown into vessels of any kind. Or, 120 parts of fine sand, 40 of purified pearl-ash, 35 of litharge, 13 of nitre, and a small quantity of black oxide of manganese, make a good glass.

Compositions for flint-glass.—Flint glass, as it is usually called by us, is of the same general kind with that which, in other places, is called crystal-glass. It has this name from its having been originally made with calcined flints, before the use of white sand was understood; and it has retained this name, though there are now no flints used in its composition. This glass differs from the crystal-glass in having lead in its composition to flux it, and white sand for its body, whereas the fluxes used in the other are salts or arsenic, and the body consists of tarso, white river pebbles, and such kinds of stones. To the lead and white sand a due proportion of nitre is added, and a small quantity of magnesia. The most perfect kind of flint-glass is made by fusing, in a very strong fire, 120 lbs. of white sand, 50 lbs. of red-lead, 40 lbs. of the purest pearl-ash, 20 lbs. of nitre, and 5 oz. of magnesia. Another composition of flint-glass is said to consist of the following: 120 lbs. of white sand, 54 lbs. of the purest pearl-ash, 36 lbs. of red-lead, 12 lbs. of nitre, and 6 oz. of magnesia. To either of the above compositions a pound or two of arsenic may be added, to increase the flux of the composition. A still cheaper flint-glass may be made with 120 lbs. of white sand, 35 lbs. of the best pearl-ash, 40 lbs. of red-lead, 13 lbs. of nitre, 6 lbs. of arsenic, and 4 oz. of magnesia; or, instead of the arsenic, may be substituted 15 lbs. of common salt; but this will make it more brittle than the other. But the cheapest of all the compositions hitherto employed, consists of 120 lbs. of white sand, 30 lbs. of red-lead, 20 lbs. of the best pearl-ash, 10 lbs. of nitre, 15 lbs. of common salt, and 6 lbs. of arsenic. Or, 100 parts of sand, 80 to 85 of red-lead, 35 to 40 of pearl-ash, 2 or 3 of nitre, and 1 oz. of manganese. The oxide of lead may be reduced in this glass.

Of silvering glass.—Glass when smoothed and polished does not acquire the property of reflecting objects till it has been silvered, as it is called, an operation effected by means of an amalgam of tin and quicksilver. The tin-leaf employed must be of the size of the glass, because, when pieces of that metal are united by means of mercury, they exhibit the appearance of lines. Tin is one of those metallic substances which become soonest oxidated by the means of mercury. If there remains a portion of that oxide or calx, of a blackish gray color, on the leaf of tin, it produces a spot or stain in the mirror, and that part cannot reflect objects presented to it: great care, therefore, is taken in silvering glass to remove the calx of tin from the surface of the amalgam. The process is as follows:—The leaf of tin is laid on a very smooth stone table, and, mercury being poured over the metal, it is extended over the surface of it by means of a rubber made of bits of cloth. At the same moment the surface of the leaf of tin becomes covered with blackish oxide, which is removed with the rubber. More mercury is then poured over the tin, where it remains at a level to the thickness of more than a line, without running off. The glass is applied in a horizontal direction to the table at one of its extremities, and being pushed forwards it drives before it the oxide of tin which is at the surface of the amalgam. A number of leaden

weights, covered with cloth, are then placed on the glass which floats on the amalgam, in order to press it down. Without this precaution the glass would exhibit the interstices of the crystals resulting from the amalgam. These crystals have the form of large square laminæ irregularly disposed.

To obtain leaves of tin, which are sometimes six or seven feet in length, with a proportionate breadth, they are not rolled but hammered after the manner of gold-beaters. The prepared tin is first cast between two plates of polished iron, or between two smooth stones not of a porous nature, such as thunder-stone. Twelve of these plates are placed over each other; and they are then beaten on a stone mass with heavy hammers, one side of which is plain and the other rounded. The plates joined together are first beaten with the latter: when they become extended the number of the plates is doubled, so that they amount sometimes to eighty or more. They are then smoothed with the flat side of the hammer, and are beaten till they acquire the length of six or seven feet, and the breadth of four or five. The small block of tin from which they are formed is at first ten inches long, six in breadth, and a line and a quarter in thickness. When the leaves are of less extent, and thin, from eighty to 100 of them are smoothed together.

Tin, extracted from the amalgam which has been employed for silvering glass, exhibits a remarkable peculiarity. When fused in an iron pan, its whole surface becomes covered with a multitude of tetrahedral prismatic crystals, two or three lines in length, and a quarter of a line in thickness. The interior of these pieces of tin, when cut with a chisel, have a grayer tint than pure tin, which is as white as silver. The latter crystallises also by cooling; but it requires care. When it begins to be fixed, decant the part which is still in fusion, and there will remain at the bottom of the crucible beautiful crystals of a dull white color, which appeared to me to be cubes or parallelopipedons.

Painting on glass.—The primitive manner of painting on glass was very simple, and, of consequence, very easy; it consisted in the mere arrangement of pieces of glass of different colors, in some sort of symmetry; and constituted a kind of what we call Mosaic work. Afterwards, when they came to attempt more regular designs, and even to represent figures raised with all their shades, their whole address went no farther than to the drawing the contours of the figures in black, with water colors, and etching the draperies after the same manner, on glasses of the color of the object intended to be painted. For the carnations they chose glass of a bright red; upon which they designed the principal lineaments of the face, &c., with black. At last, the taste for this sort of painting being considerably improved, and the art being found applicable to the adorning of the churches, basilicas, &c., they found means of incorporating the colors with the glass itself, by exposing them to a proper degree of fire, after the colors had been laid on.

Those beautiful works, among the painters in glass, which were made in the glass-house, were of two kinds: in some the color was diffused through the whole body of glass; in others, which were the more common, the color was only on one side, scarcely penetrating within the substance above one-third of a line; though this was, more or less, according to the nature of the color, the yellow being always found to enter the deepest. These last, though not so strong and beautiful as the former, were of more advantage to the workmen; because, on the same glass, though already colored, they could show other kinds of colors, where there was occasion to embroider draperies, enrich them with foliages, or represent other ornaments of gold, silver, &c. In order to this, they made use of emery: grinding, or wearing down the surface of the glass, till such time as they were got through the color to the clear glass: this done, they applied the proper colors on the other side of the glass. By this means the new colors were prevented from running, and mixing among the former, when the glasses came to be exposed to the fire, as will hereafter be shown.

When the intended ornaments were to appear white, or silvered, they contented themselves to bare the gloss of its color with emery, without applying any new color at all; and it was in this manner that they wrought the lights and heightenings on all kinds of colors. The painting with vitreous colors on glass depends entirely on the same principles as painting in enamel, and the manner of executing it is likewise the same, except that in this, the transparency of the colors being indispensably requisite, no substances can be used to form them but such as vitrify perfectly: and, therefore, the great object is to find a set of colors which are composed of such substances, as, by the admixture of other bodies, may promote their vitrification and fusion; are capable of being converted into glass; and melting in that state, with less heat than is sufficient to melt such other kinds of glass as may be chosen for the ground, or body to be painted; to temper these colors, so as to make them proper to be worked with a pencil, and to burn or reduce them by heat, to a due state of fusion, without injuring or melting the glass which constitutes the body painted. The first thing to be done, in order to paint on glass, in the modern way, is to design, and even color, the whole subject on paper. Then they make choice of pieces of glass proper to receive the several parts, and proceed to divide or distribute the design itself, or the paper it is drawn on, into pieces suitable to those of glass; having always a view that the glasses may join in the contours of the figures, and the folds of the draperies; that the carnations and other finer parts may not be damaged by the lead wherewith the pieces are to be joined together. The distribution being made, they mark all the glasses, as well as papers, with letters or numbers, that they may be known again; which done, applying each part of the design on the glass intended for it, they copy or transfer the design upon this glass, with the black color, diluted in gum-water, by tracing and following all the lines and strokes as they appear through the glass with the point of a pencil.

When these first strokes are well dried, which happens in about two days, the work being only in black and white, they give it a slight wash over with urine, gum arabic, and a little black;

and this several times repeated, according as the shades are desired to be heightened; with this precaution, never to apply a new wash till the former is sufficiently dried. This done, the lights and risings are given, by rubbing off the color in the respective places with a wooden point, or the handle of the pencil.

As to the other colors above-mentioned, they are used with gum-water, much as in painting in miniature, taking care to apply them lightly, for fear of effacing the outlines of the design; or even, for the greater security, to apply them on the other side, especially yellow, which is very pernicious to other colors by blending therewith.

And here too, as in pieces of black and white, particular regard must be always had not to lay color on color, or lay on a new lay till such time as the former are well dried. It may be added, that the yellow is the only color that penetrates through the glass, and incorporates therewith by the fire; the rest, and particularly the blue, which is very difficult to use, remaining on the surface, or at least entering very little. When the painting of all the pieces is finished, they are carried to the furnace or oven, to anneal or bake the colors. The furnace here used is small, built of brick, from eighteen to thirty inches square. At six inches from the bottom is an aperture to put in the fuel, and maintain the fire. Over this aperture is a grate, made of three square bars of iron, which traverse the furnace, and divide it into two parts. Two inches above this partition is another little aperture, through which they take out pieces to examine how the operation goes forward. On the grate is placed a square earthen pan, six or seven inches deep, and five or six inches less every way than the perimeter of the furnace. On one side hereof is a little aperture, through which to make the trials, placed directly opposite to that of the furnaces destined for the same end. In this pan are the pieces of glass to be placed in the following manner:—First, the bottom of the pan is covered with three strata, or layers, of quicklime pulverised; those strata being separated by two others of old broken glass, the design whereof is to secure the painted glass from the too intense heat of the fire. This done, the glasses are laid horizontally on the last, or uppermost layer of lime. The first row of glass they cover over with a layer of the same powder an inch deep; over this they lay another range of glasses; and thus alternately till the pan is quite full, taking care that the whole heap always ends with a layer of the lime-powder.

The pan thus prepared, they cover up the furnace with tiles on a square table of earthenware, closely luted all round, only having five little apertures, one at each corner, and another in the middle to serve as chimneys.

Things thus disposed, there remains nothing but to give the fire to the work. The fire for the first two hours must be very moderate, and must be increased in proportion as the coction advances for the space of ten or twelve hours, in which time it is usually completed. At last the fire, which at first was only of charcoal, is to be of dry wood; so that the flame covers the whole pan, and even issues out at the chimneys. During the last hours they make assays from time to time by taking out pieces laid for that purpose, through the little aperture of the furnace and pan, to see whether the yellow be perfect, and the other colors in good order. When the annealing is thought sufficient, they proceed with great haste to extinguish the fire, which otherwise would soon burn the colors and break the glasses.

Mr. Collins, glass-manufacturer of the Strand, near Temple Bar, has furnished the following observations and receipts on this subject:—

'Enamel colors and painting on glass,' says Mr. Collins, 'differ totally from all others, it being requisite on glass that the colors used should appear transparent, and bear (without blistering in the kiln) to be laid on very thick. In every other style of enamel painting the fluxes must be so compounded as to bring the beauty of the color on the surface, and they do not require to be any thing like the substance compared to those used on glass.

'Crown window glass is the best for the purpose of enamelling upon, its principal composition or base being silex, which is not only the best substance for receiving colors, but also by far the best as the base for the fluxes. The best fluxes are obtained from finely calcined flints, lead and salts forming the fusing matter; these latter must be carefully used in various proportions, as the colors or oxides require.

'*Receipts for the colors.*—From gold only are prepared any pink or rose colors, although it has often been asserted that the French have prepared them from iron, which may sometimes answer for an orange-red, but will never produce a pink; and is very far (even as a red) from being so fixed a color as those made from gold, although it has been stated to be more so. In fact, a color being well fixed (on the contrary) depends as much upon the properties of the flux being rightly prepared to receive it as on the oxide or coloring matter itself, which experiment only can firmly elucidate.

'All metals should be as far removed from their metallic state as possible, and when in that state from which it would be the most difficult to restore it, it is best calculated for the purpose, therefore gold precipated by tin is better than that by an alkali, being a much more perfect oxide. Besides that tin is the firmest and best base for receiving and holding the color struck from gold.

'In combining the fluxes, so that they shall bear the greatest possible affinity for the oxides intended, rests the principal art of color-making.

'In the solutions of gold and tin it is best to use more of the nitric and as little of the muriatic acid as possible, and the larger the proportion of metal that can be dissolved in a certain portion of acids the better.

'In the solution of gold the beauty of the color rests principally in the precipitate; to obtain the best, use the water as hot as possible; into about a pint of which drop a little gold (about fifteen or twenty drops), then the tin most carefully, by a drop at a time until it becomes as nearly as possible the color of port-wine at the edge of the basin; it will then instantly precipitate itself. Wash it several times with very hot water; it must now be mixed with its flux before it is suffered to dry.

'Rose color should always be made from an oxide that inclines to the pink (as it occasionally differs); the flux should contain scarcely any lead, a small portion of silver is then added, and the whole finely ground before dry.

'I have entered at greater length into the pink and rose colors produced from gold than on any others, they being by far the most difficult to produce, and should never be made but on a bright and clear sun-shiny day, which I am persuaded has great influence on the preparation, as you never can produce this color good with a damp atmosphere or a cloudy sky.

'Blue is made from cobalt; the best is that prepared by fire, as in Staffordshire, being more condensed than that which is prepared by the acids. It is then fused with borax ground fine and washed several times; when dry, mixed with the flux and melted together.

'Purple is made from an oxide that inclines to the blue, and the flux may contain a much larger portion of lead, &c., as the rose color, only omitting the silver.

'Yellows are made from varied proportions of the oxides of antimony and lead. Tin is best omitted and silex used in its place; the whole to be well melted.

'Orange. Prepared as the yellow, only introducing a small quantity of the purple oxide of gold, and melted as yellow.

'Brown is made from manganese and antimony ground with the flux, and well melted together.

'Black is best when made from good iron scales and oxide of cobalt, with a little of the darkest possible purple oxides of gold, mixed with the flux and melted together.

'Green is made from copper oxidated by fire, united with the flux, and well melted. It is then mixed with yellow to produce a grass green, and with white enamel (made by arsenic) to produce a blue-green.

'White, which is seldom used on glass, is made from arsenic mixed with the flux, and when in a state of fusion kept well covered. Tin is also considered, for some purposes, the only thing from which a good fixed white can be made, but all that I have yet seen made in this country is very bad. The Venetian white enamel only can be depended on, which latter more particularly applies to enamelling on copper. The hard white enamel is but very little understood in this country. By some its base is stated to be the oxide of tin, but it is very doubtful. This is that substance used as the first ground or coating of the copper-plates for enamel painting, over which a somewhat more transparent and softer enamel (termed flux) is laid, which, melting sooner than the first, is better adapted for receiving the colors. In this style of painting so little can be done before it is necessary to fire the picture, that it frequently requires a dozen fires to complete a painting.

'Ruby. That produced by the ancients is what has made the greatest noise, the art of making which being considered lost, and for this reason principally admired. But this is an error, as that beautiful color is now made in as great perfection as ever, and equally well understood. Ruby may be made either from gold or copper. When made from the latter the color is liable to change by various degrees of heat, any thing above a red heat totally dissipating it. That made from gold is perfectly fixed, though not quite so deep a tint; with this latter, antimony, iron, and silver are used. With the copper red tartar.

'Painting on glass requires infinitely more care in burning than enamel, both on account of the superior size and brittleness of the substance; it therefore requires many hours annealing.

'In the preparing of glass and enamel colors there is great difference; but the oxides or coloring matters are alike in all, excepting the yellow, which on glass is produced from silver, on enamel from antimony. A fine red is produced on glass by the union of silver and antimony.'

GLAS (John), M. A., the founder of that sect of Independents commonly distinguished in Scotland by the name of Glassites, and in England by that of Sandemanians. See INDEPENDENTS. His father was minister of Abernethy; and he was born at his father's manse in 1695 He was educated and obtained the degree of M.A. at St. Andrews; and was, when a very young man, ordained minister of Tealing, near Dundee. His doctrines and ministry were remarkable, and drew much attention; and, even while connected with the establishment, his peculiar ideas of the purity of church communion and government, were observable In 1727 he published a work, entitled The Testimony of the King of Martyrs, in which his Independent principles were fully developed. In that treatise he maintains the inconsistency of any connexion between civil establishments and the church of Christ, which is not of this world. This publication, with other concurring circumstances, produced a long controversy between Mr. Glas and the Synod of Angus and Mearns. So far, however, from retracting or trimming in his principles, he still more openly avowed and maintained them, in a tract published the following year, entitled, A Congregation subject to no Jurisdiction under Heaven. He was deposed in 1728, and immediately afterwards connected himself with a few poor people who adhered to him; and, although his adherents have never been numerous, the doctrines which he taught have been generally spread through Britain and many parts of America. He was subjected to great poverty for many years, in supporting a numerous family of thirteen children; and died at Dundee, in November, 1773, highly valued by his friends, and respected by all who knew him. He published many religious Tracts, which were collected and printed in 4 vols. 8vo., and since reprinted in 5 vols. The leading doctrines in these works, are, 1. The divinity of Christ, and the perfection of his righteousness to justify the ungodly; 2. Purity of Christian com-

munion; 3. Independence of all human authority in matters of conscience; 4. The strictest subjection to civil government and magistracy in civil concerns; and, 5. Unqualified obedience to the commands of Christ and his apostles.

GLASSE (George Henry), a modern classical scholar of some eminence, was educated at Christ Church, Oxford, where he took the degree of M.A. in 1782. His father, Dr. Samuel Glasse, resigned in 1785 the rectory of Hanwell, Middlesex, in his favor. He held it till his death in November, 1809. Mr. Glasse at an early period of his life possessed a remarkable facility of writing Greek verses. In 1781 he published a translation of Mason's Caractacus, and in 1788 a translation of the Samson Agonistes of Milton into Greek verse. He published likewise Contemplations on the Sacred History, altered from the Works of Bishop Hall, 4 vols. 12mo.; Louisa, a Narrative of Facts, supposed to throw light on the Mysterious History of the Lady of the Hay-stack, translated from the French; a Volume of Sermons on various subjects, &c.

GLASTONBURY, a town of England, in Somersetshire, anciently called Avalonia. It is noted for a famous abbey, some magnificent ruins of which still remain. The curious structure called the abbot's kitchen is pretty entire. The monks pretended that it was the residence of Joseph of Arimathea, and of St. Patrick. Ina, king of the West Saxons, erected a church here, A.D. 708, which he and his successors enriched so much, that the abbot had the title of lord, and sat among the barons in parliament: not even a bishop or prince durst set foot on the isle of Avalon, in which the abbey stands, without his leave. The revenue was about £40,000 a-year, besides seven parks stocked with deer. In 853 it was ruined by the Danes, but rebuilt by king Edward I. In 1184 both the town and abbey were burnt, and in 1276 suffered much by an earthquake. Richard Witing, the last abbot, who had 100 monks and 400 domestics, was hanged on Torhill, in his pontificals, with two of his monks, for refusing to take the oath of supremacy to Henry VIII. Edgar and many other Saxon kings were buried here. It is said that Henry II., relying on the tradition of several songs, which recorded this to be the burial-place of king Arthur, ordered a search to be made, when a leaden cross was discovered with a Latin inscription in rude Gothic characters, thus translated: 'Here lies the famous king Arthur, buried in the isle of Avalon.' Beneath was found a coffin hollowed out of the solid rock, wherein were the bones of a human body, supposed to be those of king Arthur; which were then deposited in the church, and covered with a sumptuous monument. Every cottage has part of a pillar, a door, or a window of the old building. Here are two parish churches. This town, while under its abbots, was a parliamentary borough, but it lost that and its privilege of a corporation; the latter of which, however, was restored by queen Anne, who granted it a new charter for a mayor and burgesses. The only manufacture is stockings, but the chief support of the place is the resort of strangers to see the ruins of the abbey. Glastonbury is five miles S.S.W. of Wells, and 126 west of London.

GLASTONBURY THORN, *n. s.* A species of medlar.

This species of thorn produces some bunches of flowers in Winter, and flowers again in the Spring. *Miller.*

GLATZ, or KLADSKO, a country of the Prussian States, surrounded by Silesia, Moravia, and Bohemia. It has a territorial extent of 550 square miles, and is one of the most elevated parts of Europe, lying in the midst of the Sudetic range of mountains. The most noted of this province are the Eulengebirge, the Schneeberg, which divides it from Moravia, and the Heuscheur. In the interior some beautiful valleys diversify and animate the scenery. The rivers are the Neiss, the March, and the Erlitz. The pastures are fine, the cattle numerous, and some little corn is exported. This country also contains coal, chalk pits, and a number of mineral springs; together with mines of silver, lead, copper, and iron, but they are wrought on but a small scale. Flax is cultivated commonly, and spinning and weaving are considerable pursuits. This was formerly a lordship, dependent on the crown of Bohemia, and subject to Austria till 1742, when it was seized by Frederic II., and has ever since been retained by Prussia. It forms an important pass between Bohemia and Silesia, and is included in the government of Reichenbach, in that province. Inhabitants 100,000.

GLATZ, the capital of the above district, stands on the Neiss, between two noble hills, one of which is surmounted by an old castle, and the other by a regular modern fortress. The town itself is likewise fortified. The manufactures are leather and carpets. Glatz contains the only Lutheran parish church in the district. It surrendered to the Prussians in 1742, was taken by storm by the Austrians in 1759, but restored at the peace of 1763. It surrendered to a body of Wirtemberg and Bavarian troops 26th of July, 1807, and is now the chief town of a circle in the government of Reichenbach, fifty-five miles south by west of Breslau, and ninety-four east of Prague. Inhabitants 6700.

GLATZERGEBIRGE, a mountain ridge, forming part of the Sudetic chain, in the north-east of Bohemia. The main range touches the north of Moravia, and sends off secondary branches to the west, through the south of Bohemia, and through the north as far as Saxony.

GLAUBER (John Rodolphus), a celebrated German chemist, who flourished about 1646. He wrote a great number of treatises on chemistry, some of which have been translated into French. All his works have been collected into one volume, entitled, Glauberus Concentratus, which has been translated into English, and was printed at London in folio, in 1689. Mr. Brande speaks highly of his discoveries. Sulphate of soda was first combined by him, and called Glauber's salts.

GLAUCHAU, a town and district of the county of Schonburg, Saxony, on the Mulda Its neighbourhood, though not fertile, abounds in wood and metals, and its cotton manufac-

tures are considerable. It is also the centre of the public business of the different districts belonging to the court of Schonburg. Inhabitants 4000. It is fifty-three miles west of Dresden, and six north of Zwickau.

GLAUCO'MA, *n. s.* Gr. γλαύκωμα; Fr. *glaucome*. A fault in the eye, which changes the crystalline humor into a grayish color, without detriment of sight, and therein differs from what is commonly understood by suffusion.

The *glaucoma* is no other disease than the cataract. *Sharp.*

GLAUCOMA, from γλαυκος, sea-green, or sky color, is a disease in the eyes, wherein the crystalline humor is turned of a bluish or greenish color, and its transparency hereby diminished. To those in whom this disorder is forming, all objects appear as through a cloud or mist; when entirely formed, the visual rays are all intercepted and nothing is seen at all. The glaucoma is usually distinguished from the cataract or suffusion, in this, that in the cataract the whiteness appears in the pupil, very near the cornea; but it shows deeper in the glaucoma. Some late authors, however, maintain the cataract and glaucoma to be the same disease. According to them, the cataract is not a film, or pellicle, formed before the pupil, as had always been imagined; but an inspissation or induration of the humor itself, whereby its transparency is prevented; which brings the cataract to the glaucoma. According to Mr. Sharp, the glaucoma of the ancient Greeks is the present cataract; but M. St. Yves says, it is a cataract accompanied with a gutta serena. See SURGERY.

GLAUCUS, in ancient mythology, a deity of the sea, who, before his deification, was a fisherman of Anthedon. Having one day taken a considerable number of fishes, which he laid upon the bank, he perceived that as soon as they touched an herb that grew on the shore, they received new strength, and leaped again into the sea; upon which he was tempted to taste of the herb himself, and instantly leaped into the sea after them, where he was metamorphosed into a Triton, and became one of the sea gods.

GLAVE, *n. s.* Fr. *glaive*; Welsh *glaif*, a hook. A broad sword; a falchion.

And whet her tonge as sharpe as swerde or *gleve*.
Chaucer. The Court of Love.

Two hundred Greeks came next in sight well tryed,
Not surely armed in steel or iron strong,
But each a *glave* hath pendant by his side. *Fairfax.*

GLAV'ER, *v. n.* Sax. ȝlıpan; Welsh *glave*, flattery. It is still retained in Scotland. To flatter; to wheedle. A low word.

Kingdoms have their distempers, intermissions, and paroxysms, as well as natural bodies; and a *glavering* council is as dangerous as a wheedling priest, or a flattering physician. *L'Estrange.*

GLAUX, in botany, a genus of the monogynia order, and pentandria class of plants, natural order seventeenth calycanthemæ: CAL. monophyllous: COR. none: CAPS. unilocular, quinquevalved, and pentaspermous. Species one only; a sea-coast herb.

GLAZING. The most ancient species of glazing was in lead-work, as our many cathedrals and religious houses, still extant, demonstrate; and fixing glass in leaden frames is still continued for the same description of buildings.

The business of a glazier, if considered in its most simple operations, consists in fitting all the various kinds of glass manufactured and sold, into sashes previously prepared to receive them. The sashes, as they are now made, have a groove or rebate formed on the back of their cross and vertical bars, adapted to admit the glass: into these rebates the glazier minutely fits the squares, which he beds in a composition called putty. The putty consists of pounded whiting beaten up with linseed oil, and so kneaded and worked together as to make a tough and tenacious cement, and is of great durability; this the glazier colors to suit the sashes he may have in hand. If they are common deal sashes the putty is left and used as first manufactured; but if they are mahogany it is colored with ochre till it approaches more nearly that of the sashes.

In glazing windows the color of the glass is that on which the greatest beauty is given to the work; and to effect this successfully many different manufactories have been established. The most usual kind of window-glass now found at the glaziers' is called crown glass: it is picked and divided at the manufactory into the several different kinds which are known as firsts, seconds, and thirds, and which particularly denote the qualities of the several kinds of glass, the first being known as best crown, the next in quality second crown, and the last thirds or third crown, the price of each varying according to the quality. The glass is in pieces, called tables, of about three feet in diameter each; and, when selected and picked as above, they are packed in crates, twelve of such tables being put in each crate of best glass, fifteen in the seconds, and eighteen in the thirds. The crates consist of an open framing of unhewn wood, and the glass is packed in them in straw for security. The glaziers purchase such glass by the crate, although the duty on it is collected by the pound. The price of a crate of glass varies as its quality, the best crown being now (since the late additional duty) worth about four guineas per crate, the seconds three, and the thirds two guineas. There are several manufactories for what is called crown glass, but the most esteemed in the market is that which is made at Newcastle and its neighbourhood.

Green glass is another of these species, and which is greatly in demand for all the purposes in which color is not so particularly sought for. This sort of glass is used in the glazing of the windows of cottages; also for green and hothouses, to which it is found to answer every purpose. It is not more than one-half the cost of the crown glass. The green glass appears to have been the most ancient kind made use of, as most of the vestiges remaining in the old windows approach very nearly in their quality to what is now sold under that designation. The glaziers also prepare the crown glass so as to produce an opaque effect: it is adapted to prevent the inconvenience of being overlooked. It is tech

And first a wildly murmuring wind 'gan creep
Shrill to ringing ear; then tapers bright,
With instantaneous *gleam*, illumed the vault of *night*.
Beattie.

And this she told with some confusion and
Dismay, the usual consequence of dreams
Of the unpleasant kind, with none at hand
To expound their vain and visionary *gleams*.
Byron.

GLEAN, *v. a.* & *n. s.* } Fr. *glaner*; Lat. *gra-*
GLEAN'ER, *n. s.* } *num*; or more probably,
GLEAN'ING, *n. s.* } according to others, from Lat. *glans*, an acorn. To gather ears of corn after the reapers; to collect slowly.

They *gleaned* of them in the highways five thousand men. *Judges* xx. 45.

She came and *gleaned* in the field after the reapers. *Ruth* ii.

There shall be as the shaking of an olive-tree, and as the *gleaning* of grapes when the vintage is done. *Isaiah.*

And I come, after, *glening* here and there;
And am full glad, if I may find an ere
Of any godely worde that ye han lefte.
Chaucer. Prol. to the Legende of Good Women.

Gather
So much as from occasions you may *glean*,
If aught, to us unknown, afflicts him thus.
Shakspeare.

That goodness
Of *gleaning* all the land's wealth into one,
Into your own hands, card'nal, by extortion.
Id.

Plains, meads, and orchards, all the day he plies;
The *gleans* of yellow thyme distend his thighs:
He spoils the saffron. *Dryden's Virgil.*

But Argive chiefs, and Agamemnon's train,
When his refulgent arms flashed through the shady plain,
Fled from his well-known face with wonted fear;
As when his thundering sword and pointed spear
Drove headlong to their ships, and *gleaned* the routed rear. *Id. Æneid.*

Cheap conquest for his following friends remained;
He reaped the field, and they but only *gleaned*.
Dryden.

In the knowledge of bodies we must be content to *glean* what we can from particular experiments; since we cannot, from a discovery of their real essences, grasp at a time whole sheaves, and in bundles comprehend the nature and properties of whole species together. *Locke.*

An ordinary coffee-house *gleaner* of the city is an arrant statesman. *Id.*

The precept of not gathering their land clean, but that something should be left to the poor to *glean*, was a secondary offering to God himself. *Nelson.*

The orphan and widow are members of the same common family, and have a right to be supported out of the incomes of it, as the poor Jews had to gather the *gleanings* of the rich man's harvest. *Atterbury.*

For still the world prevailed, and its dread laugh,
Which scarce the firm philosopher can scorn,
Should his heart own a *gleaner* in the field.
Thomson.

She went, by hard necessity compelled,
To *glean* Palæmon's fields. *Id. Autumn.*

GLEANING. By the customs of some countries, particularly those of Melun and Estampes in France, before the revolution, all farmers and others were forbid, either by themselves or servants, to put any cattle into the fields, or prevent gleaning in any manner whatever, for twenty-four hours after carrying off the corn under penalty of confiscation. But it has been settled in England that there is no common law *right* to glean; and in Scotland it is almost forbidden by the law.

GLEBE, *n. s.* } Lat. *gleba*. Turf; soil;
GLE'BOUS, *adj.* } ground. The land possessed
GLE'BY, *adj.* } as part of the revenue of an ecclesiastical benefice: fruitful; rich.

This, like the moory plots, delights in sedgy bowers;
The grassy garlands loves, and oft attired with flowers
Of rank and mellow *glebe*. *Drayton.*

The ordinary living or revenue of a parsonage is of three sorts: the one in land, commonly called the *glebe*; another in tythe, which is a set part of our goods rendered to God; the third, in other offerings bestowed upon God and his church by the people. *Spelman.*

Fertile of corn the *glebe*, of oil and wine,
With herds the pastures thronged, with flocks the hills.
Milton.

Mark well the flowering almonds in the wood;
If odorous blooms the bearing branches load,
The *glebe* will answer to the sylvan reign,
Great heats will follow, and large crops of grain.
Dryden.

Sleeping vegetables lie,
'Till the glad summons of a genial ray
Unbinds the *glebe*, and call them out to day.
Garth.

A trespass done on a parson's *glebe* land, which is a freehold, cannot be tried in a spiritual court. *Ayliffe's Parergon.*

Pernicious flattery! thy malignant seeds
In an ill hour, and by a fatal hand
Sadly diffused o'er virtue's *gleby* land,
With rising pride amidst the corn appear,
And choke the hopes and harvest of the year.
Prior.

Many parishes have not an inch of *glebe*. *Swift.*

GLECHOMA, ground ivy, a genus of the gymnospermia order, and didynamia class of plants; natural order forty-second, verticillatæ. Each pair of the antheræ come together in the form of a cross: CAL. quinquefid. Species one only. G. hederacea, the common ground ivy. Many virtues were formerly attributed to this plant, which it is now found not to be possessed of. Some, however, it has. The leaves are thrown into the vat with ale to clarify it and give it a flavor. Ale thus prepared is often drunk as an antiscorbutic. The expressed juice mixed with a little wine, and applied morning and evening, destroys the white specks upon horses' eyes. The plants that grow near it do not flourish. It is said to be hurtful to horses if they eat much of it. Sheep eat it, horses are not fond of it; cows, goats, and swine, refuse it.

GLEDE, *n. s.* Sax. glidaghde. A kind of hawk.

Ye shall not eat the *glede*, the kite, and the vulture. *Deuteronomy.*

GLEDITSIA, triple-thorned acacia, or honey-locust; a genus of the diœcia order, and polygamia class of plants; natural order thirty-third, lomentaceæ. Hermaphrodite CAL. quadrifid: COR. tetrapetalous; the stamina six, one pestil and legumen. Male CAL. triphyllous: COR. tripetalous, with six stamina. Female CAL. pen-

taphyllous: cor. pentapetalous; one pistil and legumen. There are two species, viz.

1. G. inermis, so named because the stem is unarmed, or without thorns. It is a native of South America, and in this country requires to be kept in a stove.

2. G. triacanthos, a native of Virginia and Pennsylvania. It is of an upright growth, and its trunk is guarded by thorns three or four inches long, in a remarkable manner. These thorns have also others coming out of their sides at nearly right angles: their color is red. The branches are smooth, and of a white color; but are likewise armed with red thorns, that are proportionally smaller; they are of several directions, and at the ends of the branches often stand single. The young shoots of the preceding summer are perfectly smooth, of a reddish green, and retain their leaves often until the middle of November. The flowers are produced from the sides of the young branches in July. They are a greenish catkin, and make little show; though many are succeeded by pods, that have a wonderful effect; for these are exceedingly large, more than a foot, sometimes a foot and a half in length, two inches in breadth, and of a nut-brown color when ripe. There is a variety of this species, with fewer thorns, smaller leaves, and oval pods. It has nearly the resemblance of the other; though the thorns are not so frequent, and the pods smaller, each containing only one seed. These trees are easily propagated by seeds received from America in spring, which keep well in the pods, and are for the most part good. They generally arrive in February; and, as soon as possible after, they should be sown in a well-sheltered warm border of light sandy earth. The seeds should be sown about half an inch deep; and they will for the most part come up the first spring. If the summer should prove dry, they must be constantly watered; and, if shade could be afforded them in the heat of the day, they would make stronger plants by autumn. Attention to this is peculiarly requisite; for, as the ends of the branches are often killed, if the young plant has not made some progress, it will be liable to be wholly destroyed by the winter's frost, without protection: and this renders the sowing the seeds in a warm border, under a hedge, in a well sheltered place, necessary; for these shrubs will endure our winters, even when seedlings, and will require no farther trouble; nay, though the tops should be nipped, they will shoot out again lower, and will soon overcome it. They should remain two years in the seed-bed before they are planted out in the nursery. The spring is the best time for the work. Their distances should be one foot by two; the rows should be dug between every winter; and, being weeded in summer, they may continue with no other particular care, until they are set out to remain. These trees are late in spring before they exhibit their leaves, but keep shooting long in autumn.

GLEE, *n. s.* } Sax. ɣlizze. Joy; merri-
Glee'ful, *adj.* } ment; gaiety. It anciently signified music played at feasts. It is not now used, except in ludicrous writing, or with some mixture of irony and contempt. Cheerful; gay.

Were his nailes poincted never so sharpe,
It shuldé maken every wight to dull
To here his *gle* and of his strokes full.
Chaucer. Troilus and Creseide.

She marcheth home, and by her takes the night,
Whom all the people follow with great *glee*.
Faerie Queene.

My lovely Aaron, wherefore look'st thou sad,
When every thing doth make a *gleeful* boast?
Shakspeare.

Many wayfarers make themselves *glee* by vexing the inhabitants; who again foreslow not to baigne them with perfume. *Carew.*

Is Blouzelinda dead? Farewell my *glee!*
No happiness is now reserved for me. *Gay.*

The poor man then was rich, and lived with *glee;*
Each barley-head untaxt, and day-light free.
Harte.

Full well they laughed with counterfeited *glee*
At all his jokes; for many a joke had he.
Goldsmith.

GLEED, *n. s.* From Sax. ɣlopan, to glow. A hot glowing coal. A provincial and obsolete word.

He sent hire pinnes, methe and spiced ale,
And wafres piping hot out of the *glede*.
Chaucer. The Milleres Tale.

And in his hande, methought I saw him hold
Two firie dartes as the *gledes* rede;
And angelike his winges sawe I sprede.
Id. Prologue to Legende of Good Women.

Four *gledes* han we, which I shall devise,
Avaunting, lying, anger, and covetise,
These four sparkes longen unto elde.
Chaucer. The Reves' Prologue.

GLEEK, *n. s.* Sax. ɣliczc. Musick, or musician.

What will you give us?———No money, but the *gleek:* I will give you the minstrel. *Shakspeare.*

To Gleek, *v. a.* Sax. ɣligman, is a mimick or a droll. This word is yet used in Scotland to signify spending time idly; with something of mimicry or drollery.

I can *gleek* upon occasion. *Shakspeare.*

I have seen you *gleeking* or galling at this gentleman twice or thrice. *Id.*

GLEEN, *v. a.* To shine with heat or polish. I know not the original notion of this word, says Dr. Johnson: it may be of the same race with glow or with gleam. I have not remarked it in any other place.

Those who labour
The sweaty forge, who edge the crooked scythe,
Bend stubborn steel, and harden *gleening* armour,
Acknowledge Vulcan's aid. *Prior.*

GLEET, *n. s.* & *v. a.* } Written by Skinner
Gleet'y, *adj.* } glitt, and derived from Sax. ɣlidan, to run softly. A sanious ooze; a thin ichor running from a sore. Generally used as a medical term.

His thumb being inflamed and swelled, I made an incision into it to the bone: this not only bled, but *gleeted* a few drops. *Wiseman.*

If the flesh lose its ruddiness, and the matter change to be thin and *gleety*, you may suspect it corrupting. *Id.*

A hard dry eschar, without either matter or *gleet*.
Id. Surgery.

Vapours raised by the sun make clouds, which are carried up and down the atmosphere, 'till they hit against the mountainous places of the globe, and by this concussion are condensed, and so *gleet* down the

caverns of these mountains, whose inner parts, being hollow, afford them a bason.

Cheyne's Philosophical Principles.

GLEICHEN (Frederick Von), in biography, was born in the year 1714. He was intended and educated for the profession of arms, and spent the early part of his life as an officer in the service of Bayreuth, and was distinguished by his attention to military discipline. He rose to the rank of lieutenant-colonel, and obtained the favor of the margrave. In 1756 he obtained a dismission from the service with a handsome pension, to which was afterwards added the rank of privy counsellor. He now had leisure to distinguish himself as a philosopher, a naturalist, and a writer. His attention was accidentally excited to microscopical observations; and, not satisfied with the instruments already in existence, he constructed a universal microscope, with which he combined the solar microscope. He died in June 1783, leaving behind him numerous works in natural history, as Observations on the Parts of Fructification in Plants when in bloom, and on the Insects found in them; History of the Common House Fly; Treatise on seminal Animalcula and infusion Animals; Essay towards the History of the Tree-louse of the Elm.

GLEICHEN, a district of Saxony, adjoining Gotha and Erfurt. It is divided into two parts, the larger of which is the property of various branches of the house of Hohenlohe, and has about 7000 inhabitants; the other part, containing about 1500 inhabitants, belongs chiefly to Schwartzburg-Sondershausen.

GLEN, *n. s.* Erse. *glean.* A valley; a dale; a depression between two hills.

From me his madding mind is start,
And wooes the widow's daughter of the *glen.*
Spenser.

For wheresoever the shrieking victim hath
Poured forth his blood beneath the assassin's knife,
Some hand erects a cross of mouldering lath;
And grove and *glen* with thousand such are rife,
Throughout this purple land, where law secures not life.
Byron's Childe Harold.

GLENDOWER (Owen), a celebrated Welsh chieftain, was born, as some writers state, May 28th, 1349; or, according to others, on the same day in 1354, at Trefgarn, in Pembrokeshire, of Ellen, a lineal descendant from Catherine, daughter and heiress to Llewellyn, last Prince of Wales. His father Gryffyd Vychan sent him to London for education, where he for a time studied for the English bar, but relinquished the legal profession on being appointed scutiger to Richard II. A contemporary bard, Jolo Goch, describes his family mansion in high terms, and his contest with Reginald lord Grey de Ruthyn respecting an estate called Croesau. On the deposition of his royal patron, by Henry IV., his antagonist prevailed; and, being charged with the delivery of a summons from the new king to Owen to attend him on an expedition, he purposely neglected to deliver it, Glendower was in consequence outlawed; when his enemy Grey seized all his lands, and the parliament utterly neglected his remonstrances. Glendower now forcibly dispossessed Grey of his lands, and, having raised a large force, caused himself, September 20th, 1400, to be proclaimed prince of Wales, a measure to which he is said to have been incited by some traditionary prophecies of Merlin. In 1402 he made prisoner his old persecutor the lord Grey, and fixed the price of his ransom at 10,000 marks, with a stipulation of neutrality, which was cemented into amity afterwards, by that nobleman marrying Jane, Owen's third daughter. Owen now defeated the king's forces under Sir Edward Mortimer, and was joined by the Percys, as well as occasionally assisted by Charles VI. of France, with whom a treaty of his is still extant, dated 1404, in which he is styled Owenus Dei gratia Princeps Walliæ. He at last caused himself to be formally crowned, at Machynlaeth in Montgomeryshire, as sovereign of Wales. When the rashness of Henry Percy brought on the fatal battle of Shrewsbury before all his Welsh auxiliaries had come up, this prince is said to have been so near as to have reconnoitred the action from the top of a tree, and seeing all was lost, retreated to a marauding warfare. In 1415 Henry condescended to treat with him; but Owen dying on the 20th of September, the negociation was continued and ratified by his son Meredyd ap Owen, February 24th, 1416. Descendants of his are said to be yet living in the family of Monington, at the place of that name in Herefordshire.

GLEW, *n. s.* Lat. *gluten.* A viscous cement made by dissolving the skins of animals in boiling water, and drying the gelly. See GLUE.

GLIB, *n. s.*, *adj.* & *v. a.* } From Gr. λειος.
GLIB'LY, *adv.* } Any thing smooth
GLIB'NESS, *n. s.* } and slippery; when applied to conversation, it implies volubility: to castrate.

The Irish have from the Scythians mantles and long *glibs*; which is a thick curled bush of hair hanging down over their eyes, and monstrously disguising them. *Spenser on Ireland.*

I want that *glib* and oily art
To speak and purpose not, since what I well intend,
I'll do't before I speak. *Shaksp. King Lear.*

I'll geld them all: fourteen they shall not see,
To bring false generations; they are coheirs,
And I had rather *glib* myself, than they
Should not produce fair issue. *Shakspeare.*

A polished ice-like *glibness* doth enfold
The rock. *Chapman's Odyssey*

I undertook that office, and the tongues
Of all his flattering prophets *glibbed* with lies
To his destruction as I had in change.
Milton's Paradise Regained.

There was never so much *glib* nonsense put together in well sounding English. *Locke.*

Liquid bodies have nothing to sustain their parts, nor any thing to cement them; the parts being *glib*, and continually in motion, fall off from one another, which way soever gravity inclines them.
Burnet's Theory.

Many who would startle at an oath, whose stomachs as well as consciences recoil at an obscenity, do yet slide *glibly* into a detraction.
Government of the Tongue.

The tongue is the most ready for motion of any member, needs not so much as the flexure of a joint, and by access of humours acquires a *glibness* too, the more to facilitate its moving. *Id.*

Habakkuk brought him a smooth strong rope compactly twisted together, with a noose that slipt as *glib* as a birdcatcher's gin. *Arbuthnot.*

Be sure he's a fine spoken man;
Do but hear on the clergy how *glib* his tongue ran.
Swift.

Now Curl his shop from rubbish drains;
Three genuine tomes of Swift's remains:
And then, to make them pass the *glibber*,
Revised by Tibbald, More, and Cibber. *Id.*

GLIDE, *v. n.* & *n. s* } Sax. ȝliðan; Dutch,
GLIDER, *n. s.* } *glijden.* To flow smoothly, gently, and silently; to move regularly and swiftly along, as in skating on the ice.

His goode stede he al bestrode,
And forth upon his way he *glode*,
As sparcle out of bronde.
Chaucer. Rime of Sire Thopas.

The vapour, which fro the erthe *glode*,
Maketh the sunne to seme rody and brode.
Id. The Squieres Tale.

She *glade* forth as an adder doth.
Gower. Confessio Amanti's.

The glaunce into my heart did *glide*;
Hey ho the *glider*;
Therewith my soul was sharply gride,
Such wounds soon waxen wider. *Spenser.*

About his neck
A green and gilded snake had wreathed itself,
Who, with her head nimble in threats, approached
The opening of his mouth; but suddenly,
Seeing Orlando, it unlinked itself,
And with indented *glides* did slip away
Into a bush. *Shakspeare. As You Like It.*

If one of mean affairs
May plod it in a week, why may not I
Glide thither in a day? *Id. Cymbeline.*

Like a clear river thou dost *glide*,
And with thy living stream through the close channel slide. *Cowley.*

Shoals of fish, with fins and shining scales,
Glide under the green wave. *Milton.*

Just before the confines of the wood,
The *gliding* Lethe leads her silent flood. *Dryden.*

Broke by the jutting land on either side,
In double streams the briny waters *glide*. *Id.*

He trembled every limb, and felt a smart
As if cold steel had *glided* through his heart.
Id. Fables.

Where stray the muses, in what lawn or grove?
In those fair fields where sacred Isis *glides*,
Or else where Cam his winding vales divides.
Pope.

Now *gliding* remote, on the verge of the sky,
The moon half-extinguished her crescent displays.
Beattie.

Sofas 'twas half a sin to sit upon,
So costly were they; carpets every stitch
Of workmanship, so rare they made you wish
You could *glide* o'er them like a golden fish.
Byron.

GLIKE, *n. s.* Sax. ȝliȝ. See GLEEK. A sneer; a scoff; a flout. Not now in use.

Where's the bastard's-braves, and Charles his *glikes*? *Shakspeare.*

GLIM'MER, *v. n.* & *n. s.* } Dan. *glimmer*;
GLIMPSE, *n. s.* } Isl. *glimber*; Belg. *glimmen.* To shine faintly; a weak and gentle light, sometimes quick and flashing.—Hence metaphorically, a brief enjoyment; a transitory view; a resemblance.

————if that ye mighten see,
Ye wold not say thise wordes unto me
Ye have some *glimsing* and no parfit sight.
Chaucer. The Merchantes Tale.

The west yet glimmers with some streaks of day.
Shakspeare.

The truth appears so naked on my side,
That any purblind eye may find it out.
—And on my side it is so well apparelled
So clear, so shining, and so evident,
That it will *glimmer* through a blind man's eye.
Id.

No man hath a virtue that he has not a *glimpse* of.
Id.

On the way the baggage post-boy, who had been at court, got a *glimmering* who they were. *Wotton.*

Some God punisheth exemplarily in this world, that we might have a taste or *glimpse* of his present justice. *Hakewill.*

For there no twilight of the sun's dull ray
Glimmers upon the pure and native day. *Cowley.*

There no dear *glimpse* of the sun's lovely face
Strikes through the solid darkness of the place.
Id.

Oft in *glimmering* bowers and glades
He met her. *Milton.*

O friends! I hear the tread of nimble feet
Hasting this way, and now by *glimpse* discern
Ithuriel, and Zephon, through the shade. *Id.*

Such vast room in nature,
Only to shine, yet scarce to contribute
Each orb a *glimpse* of light, conveyed so far
Down to this habitable, which returns
Light back to them. *Id.*

See'st thou yon' dreary plain, forlorn and wild,
The seat of desolation, void of light,
Save what the *glimmering* of these livid flames
Casts pale and dreadful? *Id. Paradise Lost.*

If I, celestial sire, in aught
Have served thy will, or gratified thy thought,
One *glimpse* of glory to my issue give;
Graced for the little time he has to live.
Dryden.

What should I do! while here I was enchained,
No *glimpse* of godlike liberty remained. *Id.*

Thousands of things, which now either wholly escape our apprehensions, or which our short-sighted reason having got some faint *glimpse* of, we, in the dark, grope after. *Locke.*

Through these sad shades, this chaos in my soul,
Some seeds of light at length began to roll;
The rising motion of an infant ray
Shot *glimmering* through the cloud, and promised day.
Prior.

If, while this wearied flesh draws fleeting breath,
Not satisfied with life, afraid of death,
If haply be thy will that I should know
Glimpse of delight, or pause from anxious woe;
From now, from instant now, great sire, dispel
The clouds that press my soul. *Id.*

Stones which are composed of plates, that are generally plain and parallel, and that are flexible and elastick: talc, catsilver, or *glimmer*, of which there are three sorts, the yellow or golden, the white or silvery, and the black. *Woodward.*

The lesser masses that are lodged in sparry and stony bodies, dispersedly, from their shining and *glimmering*, were an inducement to the writers of fossils to give those bodies the name of mica and *glimmer*. *Id. On Fossils.*

The pagan priesthood was always in the druids; and there was a perceivable *glimmering* of the Jewish rites in it, though much corrupted. *Swift.*

Oft by the winds, extinct the signal lies;
Or smothered in the *glimm'ring* socket dies.
Gay's Trivia.

When rosy morning *glimmered* o'er the dales,
He drove to pasture all the lusty males. *Pope.*

Long while the silent passion, wanting vent,
Made flowing tears her words, and eyes her tongue;
Till faith, experience, hope, assistance lent
To shut both flood-gates up with patience strong;
The streams well ebbed, new hopes some comforts borrow
From firmest truth; then *glimpsed* the hopeful morrow;
So spring some dawns of joy, so sets the night of sorrow. *Fletcher. Purple Island.*

And the pale smiles of beauties in the grave,
The charms of other days in star-light gleams,
Glimmer on high. *Byron.*

GLINUS, in botany, a genus of the pentagynia order, and decandria class of plants; natural class twenty-second, Caryophyllei: CAL. pentaphyllous: COR. none; the nectarium is composed of bifid bristles: CAP. quinqueangular, quinquelocular, quinquevalved, and polyspermous. Species twelve: of the most common is the G. vulgaris, the blue daisy, which is common to the south of Europe, and to the Levant.

GLISSON (Francis), a learned English physician of the seventeenth century, who was educated at Cambridge, and made regius professor of the University. In 1634 he was admitted a fellow of the College of Physicians in London. During the civil wars he practised physic at Colchester, and afterwards settled in London. He greatly improved physic by his anatomical dissections. He wrote, 1. De Rachitide, &c. 2. De Lymphæductis nuper Repertis; with the Anatomical Prolegomena, et Anatomia Hepatis. 3. De Naturæ Substantia Energetica; seu de Via Vitæ Naturæ, ejusque Tribus Primis Facultatibus, &c. quarto. 4. Tractatus de Ventriculo et Intestinis, &c. He discovered the capsula communis, or vagina portæ.

GLIS'TEN, *v. n.*
GLIS'TER, *v. n.*
GLIT'TER, *v. n.* & *n. s.*
GLIT'TERAND, *part.*
GLIT'TERINGLY, *adv.*

} Sax. glitinan; Ger. *gleissen*; Dut. *glisteren*. To shine brightly; to exhibit lustre. They are words of similar meaning; glitterand, is an old participle, used especially by Chaucer and the old poets; still retained in Scotland: showy or spurious.

His crispe here like ringes was yronne,
And that was yelwe, and *glitered* as the sonne.
Chaucer. The Knightes Tale.

His *glitterand* armour shined far away,
Like glauncing light of Phœbus' brightest ray;
From top to toe no place appeared bare,
That deadly dint of steele endanger may.
Spenser. Faerie Queene.

Is not from hence the way that leadeth right
To that most glorious house that *glistereth* bright
With burning starres. *Id.*

The wars flame most in Summer, and the helmets *gluster* brightest in the fairest sunshine. *Spenser.*

'Tis better to be lowly born,
And range with humble livers in content,
Than to be perked up in a *glistering* grief,
And wear a golden sorrow. *Shakspeare.*

All that *glisters* is not gold. *Id.*

Steel glosses are more resplendent than the like plates of brass, and so is the *glittering* of a blade.
Bacon's Physical Remains.

You were more the eye and talk
Of the court to-day, than all
Else that *glistered* in Whitehall. *Ben Jonson.*

Clad
With what permissive glory since his fall
Was left him, or false *glitter*. *Milton.*

When the sword *glitters* o'er the judge's head,
And fear has coward churchmen silenced,
Then is the poet's time, 'tis then he draws,
And single fights forsaken virtue's cause. *Marvell.*

It consisted not of rubies, yet the small pieces of it were of a pleasant reddish colour, and *glistered* prettily.
Boyle.

Before the battle joins, from afar
The field yet *glitters* with the pomp of war.
Dryden's Virgil.

A fresher green the smiling leaves display,
And *glittering*, as they tremble, cheer the day.
Parnell.

Flourish not too much upon the *glitter* of fortune, for fear there should be too much alloy in it.
Collier on Pride.

Scarce had'st thou time to unsheath thy conquering blade;
It did but *glitter*, and the rebels fled. *Granville.*

On the one hand set the most *glittering* temptation to discord, and on the other the dismal effects of it.
Decay of Piety.

Take away this measure from our dress and habits, and all is turned into such paint and *glitter*, and ridiculous ornaments, as are a real shame to the wearer. *Law.*

The ladies' eyes *glistened* with pleasure.
Richardson's Pamela.

In *glittering* scenes, o'er her own heart severe;
In crowds collected; and in courts sincere. *Young.*

Her sky-like arms *glittered* in golden beams,
And brightly seemed to flame with burning hearts;
The scorching ray with his reflected streams
Fire to their flames, but heavenly fire imparts;
Upon his shield a pair of turtles shone;
A lovely pair still coupled, ne'er alone;
Her word, 'though one when two, yet either two or none. *Fletcher's Purple Island.*

What tho' we quit all *glittering* pomp and greatness,
The busy, noisy, flattery of courts,
We shall enjoy content; in that alone
Is greatness, power, wealth, honour, all summed up.
Powel's King of Naples.

The Convents' white walls *glisten* fair on high.
Byron. Childe Harold.

——————it is a splendid sight to see
(For one who hath no friend or brother there)
Their rival scarfs of mixed embroidery,
Their various arms that *glitter* in the air. *Id.*

GLISTER, *n. s.* Properly written clyster, from κλύζω. See CLYSTER. It is written wrong even by Browne.

Now enters Bush with new state airs,
His lordship's premier minister;
And who, in all profound affairs,
Is held as needful as his *glister*. *Swift.*

Choler is the natural *glister*, or one excretion whereby nature excludeth another; which, descending daily unto the bowels, extimulates those parts, and excites them unto expulsion. *Browne.*

GLITNESS, one of the smaller Shetland Isles, eleven miles north from Lerwick, on the east coast of Shetland. Long. 1° 16′ W., lat. 60° 22′ N.

GLOAT, *v. n.* This word Dr. Johnson conceives to be ignorantly written from gloar (Belg.

gloeren). To cast side glances as a timorous lover.

Teach every grace to smile in your behalf,
And her deluding eyes to *gloat* for you. *Rowe.*

GLOBE, *n. s.* | GLOBA'TED, *adj.* | GLOBOSE', *adj.* | GLOBOS'ITY, *n. s.* | GLO'BOUS, *adj.* | GLOB'ULAR, *adj.* | GLOB'ULE, *n. s.* | GLOB'ULOUS, *adj.* | GLOBULA'RIA, *n. s.* Lat. *globus*, *globosus*, *globulus*; Fr. *globe*, *globule*; Gr. γηλοφος. It is properly an irregular round body, and thus differing from a ball which is entirely circular. A term applied to our earth; to the mechanical body which represents it: the various adjectives are applied to matter which assumes this form, as the red particles of blood; spheres of quicksilver; &c.: and to different kinds of plants and flowers, as globe amaranth; globe daisy; globe ranunculus; globe thistle: globularia, a flosculous flower: also to a fish called globe fish. A body of soldiers drawn into a circle.

The astrologer who spells the stars,
Mistakes his *globe*, and in her brighter eye
Interprets heaven's physiognomy. *Cleaveland.*

These are the stars,
But raise thy thoughts from sense, nor think to find
Such figures as are in *globes* designed. *Creech.*

On his right side stood a fair *globe* of beaten gold, on a pyramis, with a cross upon it; to which, before he spake, turning a little, he crossed himself.
Milton. History of Mosco.

Regions, to which
All thy dominion, Adam, is no more
Than what this garden is to all the earth,
And all the sea; from one entire *globose*
Stretched into longitude. *Id. Paradise Lost.*

Then formed the moon
Globose, and every magnitude of stars.
Milton.

Him round
A *globe* of fiery seraphim inclosed,
With bright imblazoning, and horrent arms.
Id.

Wide over the plain, and wider far
Than all this *globose* earth in plain outspread;
Such are the courts of God! *Id.*

See, the' apish Earth hath lighted many a star,
Sparkling in dewy *globes*. *Fletcher's Purple Island.*

The whiteness of such *globulous* particles proceeds from the air included in the froth. *Boyle.*

Where God declares his intention to give dominion, he meant that he would make a species of creatures that should have dominion over the other species of this terrestrial *globe*. *Locke.*

Why the same eclipse of the sun, which is seen to them that live more easterly, when the sun is elevated six degrees above the horizon, should be seen to them that live one degree more westerly, &c., no account can be given, but the *globosity* of the earth.
Ray on the Creation.

The youth, whose fortune the vast *globe* obeyed,
Finding his royal enemy betrayed,
Wept at his fall. *Stepney.*

The brazen instruments of death discharge
Horrible flames, and turpid streaming clouds:
Large *globous* irons fly, or dreadful hiss,
Singeing the air. *Philips.*

The figure of the atoms of all visible fluids seemeth to be *globular*, there being no other figure so well fitted to the making of fluidity. *Grew.*

The hailstones have opaque *globules* of snow in their centre, to intercept the light within the halo.
Newton's Opticks.

Blood consists of red *globules*, swimming in a thin liquor called serum; the red *globules* are elastick, and will break; the vessels which admit the smaller *globule*, cannot admit the greater without a disease. *Arbuthnot on Aliments.*

Where is the world of eight years past? 'Twas there
I look for it—'tis gone, a *globe* of glass. *Byron.*

GLOBE, in geometry. See SPHERE.

GLOBE, in geography and astronomy, is particularly used for an artificial sphere of metal, plaster, paper, or other matter; on whose convex surface is drawn a map, or representation either of the earth or heavens, with the several circles conceived thereon. See GEOGRAPHY.

Globes are of two kinds, terrestrial and celestial; each of very considerable use, the one in astronomy, and the other in geography, for performing many of the operations in these sciences, in an easy obvious manner, so as to render them intelligible without any knowledge of the mathematical grounds of them. The fundamental parts, common to both globes, are an axis, representing that of the world; and a spherical shell, or cover, which makes the body of the globe, on the external surface of which the representation is drawn.

OF THE CONSTRUCTION OF GLOBES.

The globes most commonly used are made of plaster and paper. A wooden axis is provided somewhat less than the intended diameter of the globe; into the extremes of which two iron wires are driven for poles: this axis is to be the beam, or basis of the whole structure. On the axis are applied two spherical or rather hemispherical caps, formed on a kind of wooden mould or block. These caps consist of pasteboard, or paper, laid in layers, on the mould, to the thickness of a crown-piece; after which, having stood to dry and embody, making an incision along the middle, the two caps thus parted are slipped off the mould. They are next applied on the poles of the axis, as before they were on those of the mould; and, to fix them, the two edges are sewed together with pack-thread, &c. The rudiments of the globe thus laid, it must be strengthened and made smooth and regular. In order to this, the two poles are hasped in a metalline semicircle of the size intended; and a kind of plaster, made of whitening, water, and glue, heated, melted, and incorporated together, is daubed all over the paper surface. In proportion as the plaster is applied, the ball is turned round in the semicircle, the edge whereof pares off whatever is superfluous and beyond the due dimension, leaving the rest adhering in places that are short of it. After such application of the plaster, the ball stands to dry; which done, it is put again in the semicircle, and fresh matter applied: thus they continue alternately to apply the composition, and dry it, till the ball every where accurately touches the semicircle, in which state it is perfectly smooth, regular and firm. The ball thus finished, it remains to paste the map or description thereon: in order to this, the map is projected in several gores, or gussets,

all of which join accurately on the spherical surface, and cover the whole ball. To direct the application of these gores, lines are drawn by a semicircle on the surface of the ball, dividing it into a number of equal parts corresponding to those of the gores, and subdividing those again answerably to the lines and divisions of the gores. There remains only to color and illuminate the globe; and to varnish it, the better to resist dust, moisture, &c. The globe itself, thus finished, is hung in a brass meridian, with an hour circle, quadrant of altitude; and then fitted into a wooden horizon.

The following is the detailed mode of their construction:—

Fig. 1.

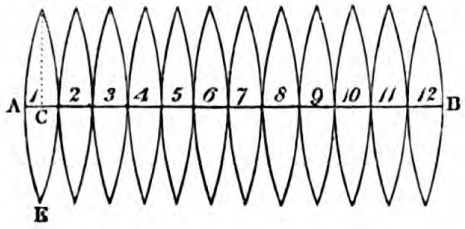


Fig. 2.

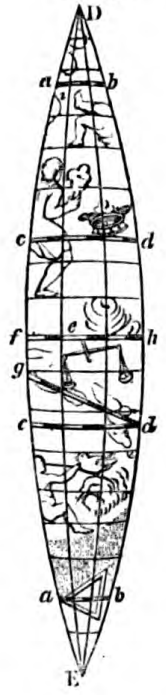
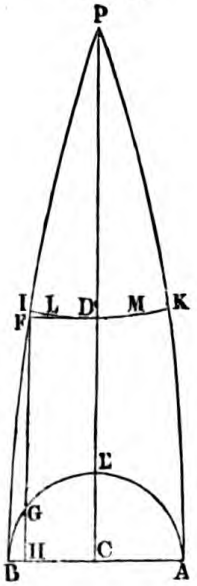


Fig. 3.



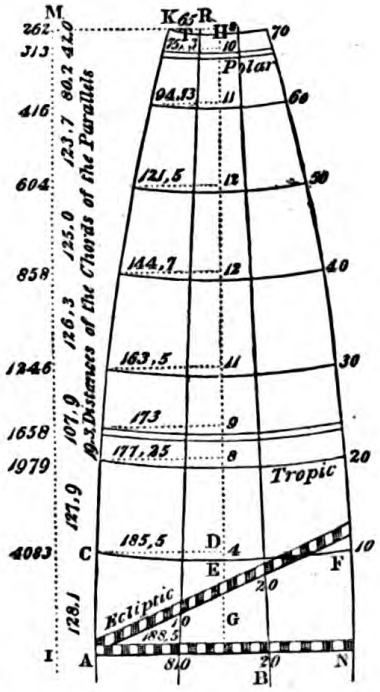
From the given diameter of the globe find a right line A B, fig. 1 of the diagram above, equal to the circumference of a great circle, and divide it into twelve equal parts. 2. Through the several points of division, 1, 2, 3, 4, &c., with the interval of ten of them, describe arches mutually intersecting each other in D and E: these figures or pieces duly pasted and joined together will make the whole surface of the globe. 3. Divide each part of the right line A B into thirty equal parts, so that the whole line A B, representing the periphery of the equator, may be divided into 360 degrees. 4. From the poles D and E, fig. 2, with the interval of twenty-three degrees and a half describe arches *a b;* these will be twelfth parts of the polar circles. 5. After the like manner, from the same poles D and E, with the interval of sixty-six degrees and a half reckoned from the equator, describe arches *c d;* these will be twelfth parts of the tropics. 6.Through the degree of the equator *e*, corresponding to the right ascension of any given star, and the poles D and E, draw an arch of a circle; and, taking in the compasses the complement of the declination from the pole D, describe an arch intersecting it in *i;* this point *i* will be the place of that star. 7. All the stars of a constellation being thus laid down, the figure of the constellation is to be drawn according to Bayer, Hevelius, or Flamstead. 8. Lastly, after the same manner are the declinations and right ascensions of each degree of the ecliptic, *d g*, to be determined. 9. The surface of the globe thus projected on a plane is to be engraven on copper, to save the trouble of doing this over again for each globe. 10. A ball in the mean time is to be prepared of paper, plaster, &c., as before directed, and of the intended diameter of the globe; on this, by means of a semicircle and style, is the equator to be drawn; and through every thirtieth degree a meridian. The ball thus divided into twelve parts, corresponding to the segments before projected, the latter are to be cut from the printed paper, and pasted on the ball. 11. Nothing now remains but to hang the globe as before in a brazen meridian and wooden horizon; to which may be added a quadrant of altitude made of brass, and divided in the same manner as the ecliptic and equator. If the declinations and right ascensions of the stars be not given, but the longitudes and latitudes in lieu thereof, the surface of the globe is to be projected after the same manner as before; except that, in this case, D and E, fig. 2, are the poles of the ecliptic, and *f h* the ecliptic itself; and that the polar circles and tropics, with the equator *g d*, and parallels thereof, are to be determined from their declinations.

M. De La Lande, in his Astronomie, tom. 3, p. 736, suggests the following method:—'To construct celestial and terrestrial globes, gores must be engraven, which are a kind of projection, or enclosure of the globe, fig. 3, similar to what is now to be explained. The length P C of the axis of this curve is equal to a quarter of the circumference of the globe; the intervals of the parallels on the axis P C are all equal, the radii of the circles K D I, which represent the parallels, are equal to the cotangents of the latitudes, and the arches of each, as D I, are nearly equal to the number of the degrees of the breadth of the gore (which is usually thirty degrees) multiplied by the sine of the latitude: thus, there will be found an intricacy in tracing them; but the difficulty proceeds from the variation found in the trial of the gores when pasting them on the globe, and of the quantity that must be taken from the paper, less on the sides than in the middle (because the sides are longer), to apply it exactly to the space that it should cover.

The method used among workmen to delineate

the gores, and which is described by M. Bion, (Usage des Globes, tom. 3) and by M. Robert de Vaugendy in vol. vii. of the Encyclopedie, is hardly geometrical, but yet is sufficient in practice. Draw on the paper a line A C, equal to the chord of fifteen degrees, to make the half breadth of the gore; and a perpendicular P C equal to three times the chord of thirty degrees, to make the half length: for these papers, the dimensions of which will be equal to the chords, become equal to the arcs themselves when they are pasted on the globe. Divide the height C P into nine parts, if the parallels are to be drawn in every ten degrees; divide also the quadrant B E into nine equal parts, through each division point of the quadrant, as G: and through the corresponding point D of the right line C P, draw the perpendiculars H G F and D F, the meeting of which in F gives one of the points of the curve B E P, which will terminate the circumference of the gore. When a sufficient number of points are thus found, trace the outline P I B with a curved rule. By this construction are given the gore breadths, which are on the globe, in the ratio of the cosines of the latitudes; supposing these breadths taken perpendicular to C D, which is not very exact, but it is impossible to prescribe a rigid operation sufficient to make a plane which shall cover a curved surface, and that on a right line A B shall make lines P A, P C, P B, equal among themselves, as they ought to be on the globe. To describe the circle K D I, which is at thirty degrees from the equator, there must be taken above D a point which shall be distant from it the value of the tangent of sixty degrees, taken out either from the tables, or on a circle equal to the circumference of the globe to be traced; this point will serve as a centre for the parallel D I, which should pass through the point D, for it is supposed equal to that of a cone circumscribing the globe, and which would touch at the point D. The meridians may be traced to every ten degrees, by dividing each parallel, as K I, into three parts at the points L and M, and drawing from the pole P, through all these division points, curves, which represent the intermediate meridians between P A and P B (as B R and S T, fig. 4). The ecliptic A Q may be described by means of the known declination from different points of the equator that may be found in a table: for ten degrees, it is 3° 58′; for twenty degrees, 7° 50′ = B Q; for thirty degrees, 11° 29′, &c. It is observed, in general, that the paper on which charts are printed, such as the colombier, shortens itself $\frac{1}{12}$ part of a line in six inches upon an average, when it is dried after printing; this inconvenience must therefore be corrected in the engraving of the gores: if, notwithstanding that, the gores are found too short, it must be remedied by taking from the surface of the ball a little of the white with which it is covered; thereby making the dimensions suitable to the gore as it was printed. But what is singular is, that in drawing the gore, moistened with the paste to apply it on the globe, the axis G H lengthens, and the side A K shortens, in such a manner that neither the length of the side A C K nor that of the axis G E H, of the gore, are exactly equal to the quarter of the circumference of the globe, when compared to the figure on the copper, or to the numbered sides shown in fig. 4. Mr. Bonne having made several experiments on the dimensions that gores take, after they had been parted ready to apply to the globe, and particularly with the paper named jesus, that he made use of for a globe of one foot in diameter, found that it was necessary to give to the gores on the copper the dimensions shown in fig. 4. Supposing that the radius of the globe contained 720 parts, the half breadth of the gore is A G = 188 $\frac{4}{10}$, the distance A C for the parallel of ten degrees taken on the right line L M is 12·81, the small deviation from the parallel of ten degrees in the middle of the gore E D is four, the line A B N is right, the radius of the parallel of ten degrees or of the circle C E F is 4083, and so of the others as marked in the figure. The small circular cap, which is placed under H, has its radius 253 instead of 547, which it would have if the sine of twenty degrees had been the radius of it.

Fig. 4.



Mr. George Adams, late mathematical instrument maker to his majesty, made some useful improvements in the construction of globes. His globes, like others, are suspended at their poles in a strong brass circle, and turn therein upon two iron pins, which are the axis. They have besides a thin brass semi-circle, moveable about the poles, with a small, thin, sliding circle upon it. On the terrestrial globe, the thin brass semi-circle is a moveable meridian, and its small sliding circle the visible horizon of any particular place to which it is set. On the celestial globe, the semi-circle is a moveable circle of declination, and its small annexed circle an artificial sun or planet. Each globe has a brass wire circle, placed at the limits of the twilight,

which, together with the globe, is set in a wooden frame, supported by a neat pillar and claw, with a magnetic needle at its base. On the terrestrial globe the division of the earth into land and water is laid down from the latest discoveries; there are also many additional circles, as well as the rhumb-lines, for solving all the necessary geographical and nautical problems. On the celestial globes, all the southern constellations, observed at the Cape of Good Hope by M. de la Caille, and all the stars in Mr. Flamstead's British Catalogue, are accurately laid down and marked with Greek and Roman letters of reference, in imitation of Bayer. Upon each side of the ecliptic are drawn eight parallel circles, at the distance of one degree from each other, including the zodiac; and these are crossed at right angles with segments of great circles at every fifth degree of the ecliptic, for the more readily noting the place of the moon, or of any planet upon the globe. The author has also inserted, from Ulugh Beigh, printed at Oxford in 1665, the mansions of the Moon of the Arabian Astronomers, so called, because they observed the moon to be in or near one of these every night during her monthly course round the earth, to each of which the Arabian characters are fixed. On the strong brass circle of the terrestrial globe, and about twenty-three degrees and a half on each side of the north pole, the days of each month are laid down according to the sun's declination; and this brass circle is so contrived, that the globe may be placed with the north and south poles in the plane of the horizon, and with the south pole elevated above it. The equator, on the surface of either globe, serves the purpose of the horary circle, by means of a semi-circular wire placed in the plane of the equator, carrying two indices, one of which is occasionally to be used to point out the time. A farther account of these globes, with the method of using them, will be found in Adams's Treatise on their Construction and Use.

Mr. G. Wright, of London, has simplified the construction of the hour-circle. There are engraved on his globes two hour-circles, one at each of the poles; which are divided into a double set of twelve hours, as usual in the common brass ones, except that the hours are figured round both to the right and left. The hour-hand or index is placed in such a manner under the brass meridian, as to be moveable at pleasure to any required part of the hour-circle, and yet remain there fixed during the revolution of the globe on its axis, and is entirely independent of the poles of the globe. In this manner, the motion of the globe round its axis carrying the hour-circle, the fixed index serves to point out the time, the same as in the reverse way by other globes. There is an advantage in having the hour-circle figured both ways, as one hour serves as a complement to XII. for the other, and the time of the sun rising and setting, and vice versâ, may be both seen at the same time on the hour-circle. In the problems generally to be performed, the inner circle is the circle of reckoning, and the outer one only the complement.

In the Philosophical Transactions for 1789, p. 1, Mr. Smeaton has proposed some improvements of the celestial globe, especially with respect to the quadrant of altitude, for the resolution of problems relating to the azimuth and altitude. The difficulty, he observes, that has occurred in fixing a semi-circle, so as to have a centre in the zenith and nadir points of the globe, at the same time that the meridian is left at liberty to raise the pole to its desired elevation, I suppose, has induced the globe makers to be contented with the strip of thin flexible brass, called the quadrant of altitude; and it is well known how imperfectly it performs its office. The improvement I have attempted, is in the application of a quadrant of altitude of a more solid construction; which being affixed to a brass socket of some length, and this ground, and made to turn upon an upright steel spindle, fixed in the zenith, steadily directs the quadrant, or rather arc, of altitude to its true azimuth, without being at liberty to deviate from a vertical circle to the right hand or left; by which means the azimuth and altitude are given with the same exactness as the measure of any other of the great circles.

Of the Use of the Globes.

We subjoin the principal problems which exemplify the use of these elegant and important scientific instruments.

Sect. I.—Of the use of the Terrestrial Globe.

Prob. I. *To rectify the globe.*—The globe being set upon a true plane, raise the pole according to the given latitude; then fix the quadrant of altitude in the zenith; and, if there be any mariner's compass upon the pedestal, let the globe be so placed that the brazen meridian may stand due south and north, according to the two extremities of the needle, allowing for its variation.

Prob. II. *To find the longitude and latitude of any place.*—Bring the given place to the brazen meridian, and the degree it is under is the latitude; then observe the degree of the equator under the same meridian, and you will have the longitude.

Prob. III. *The longitude and latitude of any place being given, to find that place on the globe.*—Bring the degree of longitude to the brazen meridian; find upon the same meridian the degree of latitude, whether south or north, and the point exactly under that degree is the place desired.

Prob. IV. *The latitude of any place being given, to find all those places that have the same latitude.*—The globe being rectified (Prob. I.) according to the latitude of the given place, and that place being brought to the brazen meridian, make a mark exactly above the same, and, turning the globe round, all those places passing under the said mark have the same latitude with the given place.

Prob. V. *Two places being given on the globe, to find the distance between them.*—If the places are under the same meridian, that is, have the same longitude, their difference of latitude,

reckoning sixty-nine miles and a half to a degree, will give the distance.

If they have the same latitude, but differ in longitude, their distance may be found by their difference of longitude, reckoning the number of miles in a degree of longitude in their common parallel of latitude, according to the table given above.

If they differ both in latitude and longitude, lay the graduated edge of the quadrant of altitude over both the places, and the number of degrees intercepted between them will give their distance from each other, reckoning every degree to be sixty-nine English miles and a half.

Prob. VI. *To find the sun's place in the ecliptic at any time.*—The month and day being given, look for the same upon the wooden horizon; and opposite the day you will find the sign and degree in which the sun is at that time; which sign and degree being noted in the ecliptic, the same is the sun's place, or nearly, at the time desired.

Prob. VII. *The month and day being given, as also the particular time of that day, to find those places of the globe to which the sun is in the meridian at that time.*—The pole being elevated according to the latitude of the place where you are, bring the said place to the brazen meridian, and setting the index of the horary circle at the hour of the day, in the given place, or where you are, turn the globe till the index points at the upper figure of XII; which done, fix the globe in that situation, and observe what places are exactly under the upper hemisphere of the brazen meridian; for those are the places desired.

Prob. VIII. *To know the length of the day and night in any place of the earth at any time.*—Elevate the pole (Prob. I.) according to the latitude of the given place; find the sun's place in the ecliptic (Prob. VI.) at that time; which being brought to the east side of the horizon, set the index of the horary circle at noon, or the upper figure of XII; and, turning the globe till the aforesaid place of the ecliptic touch the western side of the horizon, look upon the horary circle; and where the index points, reckon the number of hours to the upper figure of XII; for that is the length of the day; the complement of which to twenty-four hours is the length of the night.

Prob. IX. *To know by the globe what o clock it is in any part of the world at any time, provided you know the hour of the day where you are at the same time.*—Bring the place in which you are to the brazen meridian, the pole being raised (Prob. I.) according to its latitude, and set the index of the horary circle to the hour of the day at that time. Then bring the desired place to the brazen meridian, and the index will point out the hour at that place.

Prob. X. *A place being given in the torrid zone, to find the two days of the year in which the sun shall be vertical to the same.*—Bring the given place to the brazen meridian, and mark what degree of latitude is exactly above it. Move the globe round, and observe the two points of the ecliptic that pass through the said degree of latitude. Find upon the wooden horizon (or by proper tables of the sun's annual motion) on what days he passes through the aforesaid points of the ecliptic; for those are the days required, in which the sun is vertical to the given place.

Prob. XI. *The month and the day being given, to find by the globe those places of the northern frigid zone, where the sun begins then to shine constantly without setting; as also those places of the southern frigid zone, where he then begins to be totally absent.*—The day given (which must be always one of those either between the vernal equinox and the summer solstice, or between the autumnal equinox and the winter solstice), find (Prob. VI.) the sun's place in the ecliptic, and marking the same, bring it to the brazen meridian, and reckon the like number of degrees from the north pole towards the equator, as there is between the equator and the sun's place in the ecliptic, making a mark where the reckoning ends. Then turn the globe round, and all the places passing under the said mark are those in which the sun begins to shine constantly without setting, upon the given day. For solution of the latter part of the problem, set off the same distance from the south pole upon the brazen meridian towards the equator, as was in the former case set off from the north; then marking as before, and turning the globe round, all places passing under the mark are those where the sun begins its total disappearance from the given day.

Prob. XII. *A place being given in either of the frigid zones, to find by the globe what number of days the sun constantly shines upon the said place, and what days he is absent, as also the first and last day of his appearance.*—Bring the given place to the brazen meridian, and observing its latitude (Prob. II.), elevate the globe accordingly; count the same number of degrees upon the meridian from each side of the equator, as the place is distant from the pole; and, making marks where the reckonings end, turn the globe, and carefully observe what two degrees of the ecliptic pass exactly under the two points marked on the meridian: first for the northern arch of the circle, namely, that comprehended between the two degrees marked, which, being reduced to time, will give the number of days that the sun constantly shines above the horizon of the given place; and the opposite arch of the said circle will, in like manner, give the number of days in which he is totally absent, and also will point out which days those are. And in the interval he daily will rise and set.

Prob. XIII. *The month and day being given, to find those places on the globe to which the sun, when on the meridian, shall be vertical on that day.*—The sun's place in the ecliptic being found (Prob. VI.), bring the same to the brazen meridian, on which make a small mark exactly above the sun's place. Then turn the globe; and those places which have the sun vertical in the meridian, will successively pass under the said mark.

Prob. XIV. *The month and day being given, to find upon what point of the compass the sun then rises and sets in any place.*—Elevate the pole according to the latitude of the place, and, finding the sun's place in the ecliptic at the given ti-

bring the same to the eastern side of the horizon, and it will show the point of the compass upon which he then rises. By turning the globe till his place coincides with the western side of the horizon, you may also see upon that circle the exact point of his setting.

Prob. XV. *To know by the globe the length of the longest and shortest days and nights in any part of the world.*—Elevate the pole according to the latitude of the given place, and bring the first degree of Cancer, if in the northern, or Capricon, if in the southern hemisphere, to the eastern side of the horizon. Then, setting the index of the horary circle at noon, turn the globe about till the sign of Cancer touches the western side of the horizon, and observe upon the horary circle the number of hours between the index and the upper figure of XII, reckoning them according to the motion of the index; for that is the length of the longest day, the complement of which to twenty-four hours is the extent of the shortest night. The shortest day and longest night are only the reverse of the former.

Prob. XVI. *The hour of the day being given at any place, to find those places of the earth where it is either noon or midnight, or any other particular hour, at the same time.*—Bring the given place to the brazen meridian, and set the index of the horary circle at the hour of the day in that place. Then turn the globe till the index points at the upper figure of XII, and observe what places are exactly under the upper semicircle of the brazen meridian; for in them it is mid-day at the time given. Which done, turn the globe till the index points at the lower figure of XII; and whatever places are then in the lower semicircle of the meridian, in them it is midnight at the given time. After the same manner we may find those places that have any other particular hour at the time given, by moving the globe till the index points at the hour desired, and observing the places that are then under the brazen meridian.

Prob. XVII. *The day and hour being given, to find by the globe that particular place of the earth to which the sun is vertical at that time.*—The sun's place in the ecliptic (Prob. VI.) being found, and brought to the brazen meridian, make a mark above the same; then (Prob X.) find those places of the earth in whose meridian the sun is at that instant, and bring them to the brazen meridian; which done, observe that part of the earth which falls exactly under the aforesaid mark in the brazen meridian; for that is the particular place to which the sun is vertical at that time.

Prob. XVIII. *The day and hour at any place being given, to find all those places where the sun is then rising, or setting, or in the meridian; consequently all those places which are enlightened at that time, and those which have twilight, or dark night.*—This problem cannot be solved by any globe fitted up in the common way, with the hour-circle fixed upon the brass meridian, unless the sun be on or near either of the tropics on the given day. But by a globe fitted up with the hour-circle on its surface below the meridian, it may be solved for any day in the year, according to the following method.

Having found the place to which the sun is vertical at the given hour, if the place be in the northern hemisphere, elevate the north pole as many degrees above the horizon as are equal to the latitude of that place; if the place be in the southern hemisphere, elevate the south pole accordingly, and bring the said place to the brazen meridian. Then, all those places which are in the western semicircle of the horizon have the sun rising to them at that time, and those in the eastern semicircle have it setting: to those under the upper semicircle of the brass meridian it is noon; and to those under the lower semicircle it is midnight. All those places which are above the horizon are enlightened by the sun, and have the sun just as many degrees above them as they themselves are above the horizon; and this height may be known, by fixing the quadrant of altitude on the brazen meridian over the place to which the sun is vertical; and then, laying it over any other place, observing what number of degrees on the quadrant are intercepted between the said place and the horizon. In all those places that are eighteen degrees below the western semicircle of the horizon the morning twilight is just beginning; in all those places that are eighteen degrees below the eastern semicircle of the horizon the evening twilight is ending; and all those places that are lower than eighteen degrees have dark night.

If any place be brought to the upper semicircle of the brazen meridian, and the hour-index be set to the upper figure of XII, or noon, and then the globe be turned round eastward on its axis,—when the place comes to the western semicircle of the horizon, the index will show the time of the sun's rising at that place; and when the same place comes to the eastern semicircle of the horizon the index will show the time of the sun's setting.

To those places which do not go under the horizon, the sun sets not on that day: and, to those which do not come above it, the sun does not rise.

Prob. XIX. *The month and day being given, with the place of the moon in the zodiac, and her true latitude, to find the exact hour when she will rise and set, together with her southing, or coming to the meridian of the place.*—The moon's place in the zodiac may be found by an ordinary almanack; and her latitude, which is her distance from the ecliptic, by applying the semicircle of position to her place in the zodiac. For the solution of the problem, elevate the pole (Prob. II.) according to the latitude of the given place; and the sun's place in the ecliptic at the time being (Prob. VI.) found, and marked, as also the moon's place at the same time, bring the sun's place to the brazen meridian, and set the index of the horary circle at noon; then turn the globe till the moon's place successively meet with the eastern and western side of the horizon, as also the brazen meridian; and the index will point at those various times the particular hours of her rising, setting, and southing.

Sect. II.—Directions for using the Celestial Globe.

We shall now proceed to the use of the celestial globe, premising, that as the equator,

ecliptic, tropics, polar circles, horizon, and brazen meridian, are exactly alike on both globes, the former problems concerning the sun are solved in the same way. The method also of rectifying the globe is the same. Observe also that the sun's place for any day of the year stands directly over that day on the horizon of the celestial globe, as on the terrestrial.

The *latitude* and *longitude* of the stars, and of all other celestial phenomena, are reckoned differently from that of places on the earth: for all terrestrial latitudes are reckoned from the equator; and longitudes from the meridian of some remarkable place; but all astronomers reckon the latitudes of the heavenly bodies from the ecliptic; and their longitudes from the equinoctial colure, in that semicircle of it which cuts the ecliptic at the beginning of Aries; and thence eastward, quite round; so that stars between the equinoctial and the northern half of the ecliptic, have north declination and south latitude: those between the equinoctial and the southern half of the ecliptic have south declination and north latitude; and all between the tropics and poles, have declinations and latitudes of the same denomination.

There are six great circles on the celestial globe, which cut the ecliptic perpendicularly, and meet in two opposite points in the polar circles; which points are each ninety degrees from the ecliptic, and are called its poles. These polar points divide those circles into twelve semicircles, which cut the ecliptic at the beginning of the twelve signs. They resemble so many meridians on the terrestrial globe; and, as all places which lie under any particular meridian semicircle on that globe have the same longitude, so all those points of the heaven through which any of the above semicircles are drawn have the same longitude. And, as the greatest latitudes on the earth are at the north and south poles of the earth, so the greatest latitudes in the heaven are at the north and south poles of the ecliptic.

For the division of the stars into constellations, &c., see ASTRONOMY.

PROB. I. *To find the right ascension and declination of the sun or any fixed star.*—Bring the sun's place in the ecliptic to the brazen meridian: then that degree in the equinoctial which is cut by the meridian is the sun's right ascension; and that degree of the meridian which is over the sun's place is his declination. Bring any fixed star to the meridian, and its right ascension will be cut by the meridian in the equinoctial; and the degree of the meridian that stands over it is its declination.

So that right ascension and declination, on the celestial globe, are found in the same manner as longitude and latitude on the terrestrial.

PROB. II. *To find the latitude and longitude of any star.*—If the given star be on the north side of the ecliptic, place the ninetieth degree of the quadrant of altitude on the north pole of the ecliptic, where the twelve semicircles meet, which divide the ecliptic into the twelve signs; but if the star be on the south side of the ecliptic, place the ninetieth degree of the quadrant on the south pole of the ecliptic. Keeping the ninetieth degree of the quadrant on the proper pole, turn the quadrant about, until its graduated edge cuts the star; then the number of degrees in the quadrant between the ecliptic and the star, is its latitude; and the degree of the ecliptic cut by the quadrant, is the star's longitude, reckoned according to the sign in which the quadrant then is.

PROB. III. *To represent the face of the starry firmament, as seen from any given place of the earth, at any hour of the night.*—Rectify the celestial globe for the given latitude, the zenith, and sun's place in every respect, as taught by the sixteenth problem for the terrestrial; and turn it about, until the index points to the given hour; then the upper hemisphere of the globe will represent the visible half of the heaven for that time; all the stars upon the globe being then in such situations as exactly correspond to those in the heaven. And, if the globe be placed duly north and south, every star in the globe will point toward the like star in the heaven: by which means the constellations and remarkable stars may be easily known; all those stars under the upper part of the brazen meridian, between the south point of the horizon and the north pole, are at their greatest altitude, if the latitude of the place be north; but if the latitude be south those stars which lie under the upper part of the meridian, between the north point of the horizon and the south pole, are at their greatest altitude.

PROB. IV. *The latitude of the place, and day of the month, being given; to find the time when any known star will rise, or be upon the meridian, or set.*—Having rectified the globe, turn it about until the given star comes to the eastern side of the horizon, and the index will show the time of the star's rising; then turn the globe westward, and, when the star comes to the brazen meridian, the index will show the time of the star's coming to the meridian of your place; lastly, turn on, until the star comes to the western side of the horizon, and the index will show the time of the star's setting. N. B. In northern latitudes, those stars which are less distant from the north pole than the quantity of its elevation above the north point of the horizon never set; and those which are less distant from the south pole than the number of degrees by which it is depressed below the horizon never rise; and vice versâ in southern latitudes.

PROB. V. *To find at what time of the year a given star will be upon the meridian at a given hour of the night.*—Bring the given star to the upper semicircle of the brass meridian, and set the index to the given hour; then turn the globe, until the index points to twelve at noon, and the upper semicircle of the meridian will then cut the sun's place, answering to the day of the year sought; which day may be easily found against the like place of the sun among the signs on the wooden horizon.

PROB. VI. *The latitude, day of the month, and azimuth of any known star being given; to find the hour of the night.*—Having rectified the globe for the latitude, zenith, and sun's place, lay the quadrant of altitude to the given degree of azimuth in the horizon: then turn the globe on

its axis, until the star comes to the graduated edge of the quadrant; and when it does, the index will point out the hour of the night.

Prob. VII. *The latitude of the place, the day of the month, and altitude of any known star, being given; to find the hour of the night.*—Rectify the globe as in the former problem, guess at the hour of the night, and turn the globe until the index points at the supposed hour; then lay the graduated edge of the quadrant of altitude over the known star; and, if the degree of the star's height in the quadrant upon the globe answers exactly to the degree of the star's observed altitude in the heaven, you have guessed exactly: but if the star on the globe is higher or lower than it was observed to be in the heaven, turn the globe backwards or forwards, keeping the edge of the quadrant upon the star, until its centre comes to the observed altitude in the quadrant; and then the index will show the true time of night.

Prob. VIII. *An easy method for finding the hour of the night by any two known stars, without knowing either their altitude or azimuth; and then of finding both their altitude and azimuth, and thereby the true meridian.*—Tie one end of a thread to a common musket bullet; and, having rectified the globe as above, hold the other end of the thread in your hand, and carry it slowly round betwixt your eye and the starry heaven, until you find it cuts any two known stars at once. Then, guessing at the hour of the night, turn the globe until the index points to that time in the hour circle; which done, lay the graduated edge of the quadrant over any one of these two stars on the globe which the thread cut in the heaven. If the said edge of the quadrant cuts the other star also, you have guessed the time exactly; but if it does not, turn the globe slowly backwards or forwards, until the quadrant (kept upon either star) cuts them both through their centres: and then the index will point out the exact time of the night; the degree of the horizon cut by the quadrant will be the true azimuth of both these stars from the south; and the stars themselves will cut their true altitudes in the quadrant: at which moment, if a common azimuth compass be so set upon a floor or level pavement, that these stars in heaven may have the same bearing upon it (allowing for the variation of the needle) as the quadrant of altitude has in the wooden horizon of the globe, a thread extended over the north and south points of that compass will be directly in the plane of the meridian; and if a line be drawn upon the floor or pavement, along the course of the thread, and an upright wire be placed in the southmost end of the line, the shadow of the wire will fall upon that line when the sun is on the meridian, and shines upon the pavement.

Prob. IX. *To find the place of the moon, or of any planet; and thereby to show the time of its rising, southing, and setting.*—Seek in an almanack or Ephemeris the geocentric place of the moon or planet in the ecliptic, for the given day of the month; and according to its longitude and latitude, as shown by the ephemeris, mark the same with chalk upon the globe. Then, having rectified the globe, turn it round its axis westward; and as the said mark comes to the eastern side of the horizon, to the brazen meridian, and to the western side of the horizon, the index will show at what time the planet rises, comes to the meridian, and sets, in the same manner as it would do for a fixed star.

For an explanation of the harvest moons by a globe, and the equation of time. See Astronomy, Index.

Globe Amaranth. See Gomphrena.

Globe Animalcule. See Animalcule.

Globe Daisy. See Sphæranthus.

Globe Fish. See Ostracion.

Globe Flower. See Sphæranthus.

Globe Ranunculus. See Trollius.

Globe Thistle. See Echinops.

GLOBULARIA, globular blue daisy, a genus of the monogynia order, and tetrandria class of plants: natural order forty-eighth, aggregatæ: cal. common imbricated; proper tubulated inferior; the upper lip of the florets bipartite, the under one tripartite; the receptacle paleaceous. There are several species; but only one is commonly to be met with in our gardens, viz. the

G. vulgaris, or common blue daisy. It has broad thick radical leaves three-parted at the ends, upright stalks from about six to ten or twelve inches high, garnished with spear-shaped leaves, and the top crowned by a globular head of fine blue flowers composed of many florets in one cup. It flowers in June, and makes a good appearance: but thrives best in a moist shady situation. It is propagated by parting the roots in September.

GLOCKNER, one of the highest mountains in Europe, on the confines of Salzburg, the Tyrol, and Carinthia, is computed to be 12,760 feet above the level of the sea. It stands in long. 12° 51′ 40″ E., lat. 47° 4′ 33″ N.

GLOGAU, a large district or principality of Silesia, contiguous to Prussian Poland, and Lusatia. Its territorial extent is 1826 square miles, and the Oder traverses its whole extent; which is also watered by the Bober. The soil is clayey; producing corn and flax, and a small quantity of wine. This principality is now included in the Prussian government of Liegnitz.

Glogau, or Gnoss Glogau, in Silesia, the chief place of the foregoing principality, is well built and strongly fortified. It is situated about a mile from the Oder, and contains an elegant garrison church, erected in 1790, a Lutheran church and school, a synagogue, a Catholic academy, and two hospitals. The cathedral stands on an island formed by the Oder: it was built in 1260. Glogau has cotton and tobacco manufactures, and some considerable breweries. It was taken by the Prussians and its works greatly strengthened in 1741. In 1807 it surrendered to the forces of Bavaria and Wirtemberg, and was for a considerable time garrisoned by the French troops: the inhabitants amount to 9000, of whom 2000 are said to be Jews. Thirty-four miles east of Sagan, and sixty north-west of Breslau.

Glogau, Little or Upper, is a town of Silesia, in the government of Oppeln, inhabitants 2200. Twenty-one miles south of Oppeln, and sixty-seven south-east of Breslau.

GLOM'ERATE, *v. a.* } Lat. *glomero, glo-*
GLOMERA'TION, *n. s.* } *meratio, glomerosus.*
GLOM'EROUS, *adj.* } To gather into a ball or sphere; a filamentous substance gathered into a ball is said to be glomerated, but discontinuous particles are conglobated. Thus in the human body on this principle the glands are divided into conglobate and conglomerate.

The rainbow consisteth of a *glomeration* of small drops, which cannot fall but from the air that is very low. *Bacon.*

GLOMME, the largest river of Norway, rises in the lake of Stor Scargen, passing by Tonset, and Kongswinger, and falls into the Cattegat at Frederickstadt. It contains several cataracts, the largest of which is at Halsland; and, when swelled by the snows and heavy rain, flows with great vigor and rapidity. In 1702 it burst its banks and devastated a large extent of country.

GLOOM, *n. s.* & *v. a.* } Sax. glomang, twi-
GLOOM'ILY, *adv.* } light. Defect of
GLOOM'INESS, *n. s.* } light; heaviness or
GLOOM'Y, *adj.* } obscurity: applied to the mind it is a disposition the reverse of ease and happiness; a mind tinctured with melancholy feelings and forebodings of evil; prospects which present but little of light or hope; a state opposed equally to light or cheerfulness.

Like to the morne, when first her shyning face
Hath to the *gloomy* world itself bewrayed;
That same wos fayrest Amoret in place
Shyning with beauties light, and heavenly virtues grace. *Spenser. Faerie Queene.*

His glist'ring armour made
A little *glooming* light much like a shade.
Spenser.

Scarcely had Phœbus in the *glooming* East
Yet harnessed his fiery-footed team. *Id.*

I shall be your faithful guide
Through this *gloomy* covert wide,
And not many furlongs thence
Is your father's residence. *Milton.*

This the seat,
That we must change for heaven? This mournful gloom,
For that celestial light? *Id. Paradise Lost.*

These were from without
The growing miseries, which Adam saw
Already in part, though hid in *gloomiest* shade,
To sorrow abandoned. *Id.*

Deep in a cavern dwells the drowsy god,
Whose *gloomy* mansion not the rising sun,
Nor setting visits, nor the lightsome noon.
Dryden's Fables.

See, he comes: how *gloomily* he looks! *Dryden.*

The *gloominess* in which sometimes the minds of the best men are involved, very often stands in need of such little incitements to mirth and laughter as are apt to disperse melancholy. *Addison.*

Thou mak'st the *gloomy* face of nature gay,
Giv'st beauty to the sun, and pleasure to the day.
Id.

Neglect spreads *gloominess* upon their humour, and makes them grow sullen and inconversable.
Collier of the Spleen.

Now warm in love, now with'ring in thy bloom,
Lost in a convent's solitary *gloom*. *Pope.*

The surface of the earth is clearer or *gloomier*,
Just as the sun is bright or more overcast. *Id.*

Gloomily retired the spider lives. *Thomson.*

GLO'RIED, *adj.* } Fr. *glorie, glorieux,*
GLO'RIOUS, *adj.* } *glorifier*; Belg. *gloor*;
GLO'RIOUSLY, *adv.* } Lat. *gloria, gloriosus,*
GLORIFICA'TION, *n. s.* } *glorifico.* Glory is
GLO'RIFY, *v. a.* } something dazzling
GLO'RY, *v. n.* & *n. s.* } and diffused or shed abroad, as radii from a centre; applied figuratively to language, to acts, to states, especially the heavenly; as praise, illustrious achievements, exaltation, splendor, &c.; also boastful, ostentatious. The original idea is splendid, dazzling light. This word in a religious sense signifies adoration and praise, given to God.

If I *glorifye* my silf, my *glorie* is naught: my fadir is that *glorifieth* me, whom ye seyen that he is youre God. *Wiclif. Jon.* ix. 1.

Thou shalt guide me with thy counsel, and afterwards receive me into thy *glory*.
Psalm lxxiii. 24.

Glory to God in the highest. *Luke* ii. 14.

If God be *glorified* in him, God shall also *glorify* him in himself, and shall straitway *glorify* him.
John xiii. 32.

Whom he justified, them he also *glorified*.
Rom. viii. 30.

I shuld have deyd, ye longe time agon:
But Jusu Crist, as ye in bookes finde,
Wol that his *glory* last and be in minde;
And for the worship of his moder dere
Yet may I sing O Alma loude and clere.
Chaucer. The Prioresses Tale.

No chymist yet the elixir got
But *glorifies* his pregnant pot,
If by the way to him befall,
Some odoriferous thing, or medicinal.
Donne.

In her the richesse of all heavenly grace,
In chiefe degree, are heaped up on hye,
And all that else this worlds' enclosure bace
Hath great or *glorious* in mortall eye,
Adornes the person of her maiestye.
Spenser. Faerie Queene.

Whomsoever they find to be most licentious of life, desperate in all parts of disobedience and rebellious disposition, him they set up and *glorify*. *Spenser.*

This form and manner of *glorifying* God was not at that time first begun; but received long before, and alledged at that time as an argument for the truth.
Hooker.

They were wont, in the pride of their own proceedings, to *glory*, that whereas Luther did but blow away the roof, and Zuinglius batter but the walls of popish superstition, the last and hardest work of all remained, which was to raze up the very ground and foundation of popery. *Id.*

God is *glorified* when such his excellency, above all things, is with due admiration acknowledged. *Id.*

Let them look they *glory* not in mischief,
Nor build their evils on the graves of great men;
For then my guiltless blood must cry against them.
Shakspeare.

Two such silver currents, when they join,
Do *glorify* the banks that bound them in. *Id.*

Glorious followers, who make themselves as trumpets of the commendation of those they follow, taint business for want of secrecy. *Bacon.*

And with that word and warning soon was dight,
Each soldier longing for near coming *glory*.
Fairfax.

No place alters the condition of nature: an angel is *glorious*, though he be upon earth; and man is but earth though he be above the clouds. *Bp. Hall.*

Israel's bright sceptre far less *glory* brings,
There have been fewer friends on earth than kings.
Cowley.

At opening your eyes, enter upon the day with thanksgiving for the preservation of you the last night, with the *glorification* of God for the works of the creation. *Taylor.*

Then enter into *glory*, and resume
His seat at God's right hand, exalted high
Above all names in heaven.
Milton's Paradise Lost.

Old respect,
As I suppose, toward your once *gloried* friend,
My son, now captivate, hither hath informed,
Your younger feet, while mine cast back with age
Came lagging after. *Id. Agonistes.*

Such did the manna's sacred dew distil
White and entire, although congealed and chill
Congealed on earth; but does dissolving run
Into the *glorys* of the' almighty sun. *Marvell.*

Some to the *glory* of the Lord
Perjured themselves and broke their word.
Butler.

Oh! she is the pride and *glory* of the world:
Without her all the rest is worthless dross;
Life a base slavery; empire but a mock;
And love, the soul of all, a bitter curse.
Rochester's Valentinian.

The success of those wars was too notable to be unknown to your ears, to which all worthy fame hath *glory* to come unto. *Sidney.*

With like judgment *glorying* when he had happened to do a thing well, as when he had performed some notable mischief. *Id.*

Think it no *glory* to swell in tyranny. *Id.*

The members of the church remaining, being perfectly sanctified, shall be eternally *glorified*; then shall the whole church be truly and perfectly holy. *Pearson.*

Treated so ill, chased from your throne,
Returning, you adorn the town;
And with a brave revenge do show
Their *glory* went and came with you. *Waller.*

This is the perfection of every thing, to attain its true and proper end; and the end of all these gifts and endowments, which God hath given us, is to *glorify* the giver. *Tillotson.*

They inspire with those celestial flames, which shine so *gloriously* in their works. *Dryden.*

He is *glorious* in respect of the brightness and splendor of his celestial body, still made more *glorious* and majestick by the authority which his Father hath committed to him of universal judge. *Nelson.*

Can we imagine that neither the ambition of princes, or interest, or gain in private persons, or curiosity and the desire of knowledge, or the *glory* of discoveries, could ever move them in that endless time to try their fortunes upon the sea. *Burnet.*

It is not a converting but a crowning grace; such an one as irradiates, and puts a circle of *glory* about the head of him upon whom it descends. *South.*

Aristotle says, that should a man under ground converse with works of art, and be afterwards brought up in the open day, and see the several *glories* of the heaven and earth, he would pronounce them the works of God. *Addison's Spectator.*

Thou hast seen mount Atlas,
While storms and tempests thunder on its brow,
And oceans break their billows at its feet,
It stands unmoved, and *glories* in its height.
Id. Cato.

Let us remember we are Cato's friends,
And act like men who claim that *glorious* title.

This title of Freeholder is what I most *glory* in, and what most effectually calls to my mind the happiness of that government under which I live.
Addison's Freeholder.

Impartial justice holds her equal scales,
Till stronger virtue does the weight incline;
If over thee thy *glorious* foe prevails;
He now defends the cause that once was thine.
Prior.

Take but the humblest lily of the field,
And, if our pride will to our reason yield,
It must by sure comparison be shown
That in the regal seat great David's son,
Arrayed in all his robes and types of power,
Shines with less *glory* than that simple flower. *Id.*

A smile plays with a surprising agreeableness in the eye, breaks out with the brightest distinction, and sits like a *glory* upon the countenance.
Collier of the Aspect.

If others may *glory* in their birth, why may not we, whose parents were called by God to attend on him at his altar? *Atterbury.*

Now sleeping flocks on their soft fleeces lie;
The moon, serene in *glory*, mounts the sky. *Pope.*
From opening skies may streaming *glories* shine,
And saints embrace thee with a love like mine. *Id.*

Glorious ambition! Peter, swell thy store,
And be what Rome's great Didius was before. *Id.*
Great wits sometimes may *gloriously* offend,
And rise to faults true criticks dare not mend. *Id.*

It is hardly possible for you to beseech and intreat God to make any one happy in the highest enjoyments of his *glory* to all eternity, and yet be troubled to see him enjoy the much smaller gifts of God, in this short and low state of human life. *Law.*

If there be nothing so *glorious* as doing good, if there is nothing that makes us so like to God, then nothing can be so *glorious* in the use of our money, as to use it all in works of love and goodness. *Id.*

No one is out of the reach of misfortune; no one therefore should *glory* in his prosperity. *Clarissa.*

On death-beds some in conscious *glory* lie,
Since of the doctor in the mode they die. *Young.*
Your sexes *glory* 'tis to shine unknown,
Of all applause be fondest of your own. *Id.*
Oh Love! O *Glory!* what are ye? who fly
Around us ever rarely to alight;
There's not a meteor in the polar sky
Of such transcendant and more fleeting flight.
Byron.

GLORIOSA, superb lily, a genus of the monogynia order, and hexandria class of plants; natural order eleventh, sarmentaceæ: COR. hexapetalous, undulated, and reflected; the style oblique. There is but one species; a native of Malabar. It has a thick, fleshy, tuberous root, sending forth from its centre declinated round stalks, growing eight or ten feet long, and garnished with very long narrow leaves running out into a point, terminated by a long tendril. From the upper part of the stalks proceed large flame-colored drooping flowers, consisting of six widely spreading reflected petals. It flowers in June and July; and is of admirable beauty, whence its name. This plant requires the protection of a hot-house in this country. The flower-stalks shoot forth in March or April; which, being long and trailing, must have tall sticks for their support. The plants are propagated by offsets, which are produced in tolerable plenty, and may be separated any time after the stalks decay, or in spring before new ones arise.

GLOSE, *v. a.* To flatter; to collogue.—Hanmer. See GLOZE.

GLOSS, *n. s.*, *v. a.* & *v. n.*
GLOSS'ARY, *n. s.*
GLOSS'ATER, *n. s.*
GLOSS'ER, *n. s.*
GLOSS'INESS, *n. s.*
GLOSSOG'RAPHER, *n. s.*
GLOSSOG'RAPHY, *n. s.*
GLOSS'Y, *adj.*

Fr. *glosser*; Lat. *glossarius*; Gr. γλωσσα and γραφω. These words are connected with glaze, and signify to render the outward surface shining by friction.

In a figurative sense, to give the best appearance by way of comment; used sometimes in a bad sense, and then they imply false, or specious coloring. A commentary; embellishment; a dictionary which explains antique words: a commentator, or one who furnishes expositions, whether specious or otherwise: a smooth polished surface.

I have this day ben at your chirche at messe,
And said a sermon, to my simple wit,
Not all after the text of holy writ;
For it is hard to you as I suppose;
And therefore wol I teche you, ay the *glose*.
Glosing is a full glorious thing certain;
For letter sleth, so as we clerkes sain.
Chaucer. The Sompnoures Tale.

His iron coat all over-grown with rust,
Was underneath enveloped with gold,
Whose glistering *gloss* darkened with filthy dust
Spenser.

Is this the paradise, in description whereof so much *glossing* and deceiving eloquence hath been spent?
Hooker's Sermons.

They never hear sentence, which mentioneth the word or scripture, but forthwith their *glosses* upon it are the word preached, the scripture explained, or delivered unto us in sermons. *Hooker.*

It is no part of my secret meaning to draw you hereby into hatred, or to set upon the face of this cause any *fairer gloss* than the naked truth doth afford.
Id. Preface.

You are a sectary,
That's the plain truth: your painted *gloss* discovers,
To men that understand you, words and weakness.
Shakspeare.

Golden opinions from all sorts of people,
Which would be worn now in their newest *gloss*.
Id.

He seems with forged quaint conceit
To set a *gloss* upon his bad intent. *Id.*

The doubt will be whether it will polish so well; for steel *glosses* are more resplendent than plates of brass.
Bacon.

There came towards us a person of place; he had on him a gown with wide sleeves, of a kind of watercamblet, of an excellent azure color, far more *glossy* than ours. *Id.*

If then all souls, both good and bad, do teach,
With general voice, that souls can never die;
'Tis not man's flattering *gloss*, but nature's speech,
Which, like God's oracles, can never lie. *Davies.*

In parchment then, large as the fields, he draws
Assurances, big as *glossed* civil laws. *Donne.*

Weeds that the wind did toss
The virgins wore: the youths, woven coats, that cast a faint dim *gloss*,
Like that of oil. *Chapman's Iliads.*

Some mutter at certain passages therein, by putting ill *glosses* upon the text, and taking with the left hand what I offer with the right. *Howel.*

The rest entire
Shone with a *glossy* scurf. *Milton.*

The common *gloss*
Of theologians. *Id.*

All this, without a *gloss* or comment,
He could unriddle in a moment. *Hudibras.*

Besides, he was a shrewd philosopher,
And had read every text and *gloss* over.
Id.

Poor painters oft with silly poets join,
To fill the world with strange but vain conceit;
One brings the stuff, the other stamps the coin,
Which breeds nought else but *glosses* of deceit.
Sidney.

Their surfaces had a smoothness and *glossiness* much surpassing whatever I had observed in marine or common salt. *Boyle.*

According to Varro, when delubrum was applied to a place, it signified such a one, in quo dei simulachrum dedicatum est; and also in the old *glossaries*.
Stillingfleet.

They give the scandal, and the wise discern;
Their *glosses* teach an age too apt to learn. *Dryden.*

His surcoat was a bearskin on his back;
His hair hung long behind, and *glossy* raven black.
Id.

Thou detainest Briseis in thy bands,
By priestly *glossing* on the god's commands. *Id.*

Do I not reason wholly on your conduct?
You have the art to *gloss* the foulest cause.
Philips.

It was the colour of devotion, giving a lustre to reverence, and a *gloss* to humility. *South.*

The reason why the assertion of a single judge does not prove the existence of judicial acts, is because his office is to pronounce judgment, and not to become an evidence: but why may not the same be said of two judges? Therefore, in this respect, the *glossator's* opinion must be false. *Ayliffe.*

Groves, fields, and meadows, are at any season pleasant to look upon; but never so much as in the opening of the Spring, when they are all new and fresh, with their first *gloss* upon them. *Addison's Spectator.*

Her equals first observed her growing zeal,
And laughing *glossed*, that Abra served so well.
Prior.

Explaining the text in short *glosses*, was Accursius's method. *Baker on Learning.*

I could add another word to the *glossary*. *Baker.*

Indentures, covenants, articles, they draw,
Large as the fields themselves, and larger far
Than civil codes with all their *glosses* are. *Pope.*

Ah! what avails his *glossy* varying dyes,
His purple crest, and scarlet-circled eyes,
The vivid green his shining plumes unfold,
His painted wings, and breast that flames with gold?
Id.

To me more dear, congenial to my heart
One native charm, than all the *gloss* of art.
Goldsmith.

Thy boastful mirth let jealous rivals spill,
Insult thy crest, and *glossy* pinions sear,
And ever in thy dreams the ruthless foe appear.
Beattie.

GLOSSOPETRA, or GLOTTOPETRA, from γλωσσα, a tongue, and πετρα, a stone, in natural history, a kind of extraneous fossil, somewhat in form of a serpent's tongue; frequently found in the island of Malta and various other parts. The vulgar notion is, that they are the tongues of serpents petrified. Hence their extraordinary virtue in curing the bites of serpents. The general opinion of naturalists is, that they are the teeth of fishes, left at land by the waters of the deluge, and since petrified. The several sizes

of the teeth of the same species, and those of the several different species of sharks, afford a vast variety of these fossil substances. Their usual colors are black, bluish, whitish, yellowish, or brown; and in shape they usually approach to a triangular figure. Some are simple, others tricuspidate, having a small point on each side of the large one: many of them are quite straight; but they are frequently found crooked, and bent in all directions; many of them are serrated on their edges, and others plain; some are undulated on their edges, and slightly serrated on these undulations. They differ also in size as much as in figure; the larger being four or five inches long, and the smaller less than a quarter of an inch. They are most usually found in the strata of blue clay, though sometimes also in other substances, and are common in the claypits of Richmond and other places. They are very frequent also in Germany, but nowhere so plentiful as in the island of Malta. The Germans attribute many virtues to these fossil teeth; they call them cordials, sudorifics, and alexipharmics: and the people of Malta, where they are extremely plentiful, hang them about their childrens' necks to promote dentition. They may possibly be of as much service this way as an anodyne necklace; and, if suspended in such a manner that the child can get them to its mouth, may, by their hardness and smoothness, be of the same use as a piece of coral.

GLOTTIS, in anatomy, the narrow slit at the upper part of the aspera arteria, which is covered by the epiglottis when we hold our breath and when we swallow. The glottis, by its dilatation and contraction, modulates the voice. See ANATOMY, Index.

GLOUCESTER, a county in the east part of Virginia, North America, bounded N. N. E. by Middlesex and Matthews counties, east by Chesapeak Bay, S. S. W. by York River, and west by King and Queen county. It is fifty-five miles in length, and thirty in breadth.

GLOUCESTER, a county in New Jersey, bounded north by Burlington county, east by the Atlantic, south by Cape May, Cumberland, and Salem counties, and north-west by the Delaware. The chief town is Woodbury.

GLOUCESTER, a post and sea-port town, of the county of Essex, Massachusetts, North America, situated on Cape Ann, at the north extremity of Massachusetts Bay; sixteen north-east Salem, thirty north-east Boston. It contains a bank, an insurance office, and two public libraries, and is divided into five parishes, in each of which is a congregational meeting house. The harbour is open and accessible for large vessels; and it is one of the most considerable fishing towns in the state. Besides the harbour, properly so called, there are two small out ports, Squam, and Sandy Bay, at which the bay fishery is carried on with spirit. The shipping belonging to this port, in 1816, amounted to 11,080 tons. The harbour is defended by a battery and citadel. Thatcher's Island, on which are two lights of equal height, lies on south-east side of Gloucester and is joined to the continent by a beach of sand which is rarely overflowed. The greatest part of the town is situated on a peninsula, which was formerly an island, and it is now united to the main land by a narrow isthmus, on which is built a causeway.

GLOUCESTER, a town of Providence, county of Rhode Island, eighteen miles N. N. W. of Providence. Here are several cotton manufactories: and Chepachet village, which contains a post office and a bank, is in this township.

GLOUCESTERSHIRE. This county seems to have obtained its name from the city of Gloucester, the Colonia Glevum of the Romans, and the Caer Gloew of the ancient Britons, and so called from a prince Gloew, said to have lived at the commencement of the Roman period of the British history. Anterior to the Roman invasion, the inhabitants of the chief parts of this county, and of Oxfordshire, were distinguished by the appellation of Dobuni, from the British Dwfu, denoting inhabitants of low or vale districts. On the division of the island into Britannia Prima et Secunda, that part of this county lying south-east of the river Severn was included in the first province; the other, of course, belonging to the second division. Subsequently to this, under Constantine, the whole country in the province was named Flavia Cæsariensis. Under the Anglo-Saxon dominion it formed a portion of the kingdom of Mercia; Winchcomb and King's Stanley being the residences of the Anglo-Saxon monarchs.

Gloucestershire extends northward from 51° 28′ to 52° 12′, and from 1° 38 E. to 2° 42′ W. from London. It is bounded on the north and north-east by Worcestershire and Warwickshire, on the east by Oxfordshire, on the south-east by part of Berkshire and Wiltshire, on the south and south-west by Somersetshire and the Bristol Channel, and on the west and north-west by Monmouthshire and Herefordshire. Its extreme length is from the parish of Clifford Chambers, near Stratford-upon-Avon, to Clifton, beyond the city of Bristol, in a south-west direction, about seventy statute miles; and its breadth, from Lechdale, north-westward, to Preston, in the hundred of Botloe, about forty statute miles. Its superficial contents are nearly 1,100,000 acres. The principal divisions of this county are four: called the Kniftsgate, the Seven Hundreds, the Forest, and the Berkeley divisions; twenty-eight hundreds, included in the above divisions, one city, twenty-eight market towns, and 320 parishes. The ecclesiastical division of the county is that of parishes just named. It is, with the exception of the chapelries of Icomb and Cow-honyborn, included in the diocese of Gloucester, which comprehends one archdeaconry and ten deaneries, and is in the province of Canterbury, and is included in the western district. Besides these artificial divisions, there are three natural districts: Cotswold, or Hill, Vale, and Forest.

Speed remarks that the air of this county is pleasant, sweet, and delectable; and certainly, except on the Cotswold hills, where it is very sharp, it is remarkably healthy, although of various temperatures. Even during the winter months, it is generally soft and mild in the valleys. Of the hilly district, however, it has been remarked by the inhabitants, that eight months in the year are winter, and the other four too

cold for summer; but that in the Vale district eight months are summer, and the other four too warm for winter.

The soil is, in general, extremely fertile, and capable of producing all sorts of corn and fruits. William of Malmsbury, who died in 1142, says that 'the ground of this shire throughout yieldeth plenty of corn, and bringeth forth abundance of fruit; the one through the natural goodness only of the ground; the other through the diligent manuring and tillage, in such wise, that it would provoke the laziest persons to take pains.' This old writer adds that, in his time, 'one might see the highways and common lanes clad with apple trees and pear trees, not engrafted by the industry of man's hand, but growing naturally of their own accord.' He also adds, that no county in England was 'so thick set with vineyards as this province,' producing wines but little inferior to the French wines. According to Mr. Rudge's Map of the soil of Gloucestershire, it appears that nearly one-half the soil, extending from near Bristol, north-west to Campden, near the Warwickshire border, is a stone brash on calcareous sand-stone. A second portion, nearly as extensive, reaching in the same direction, from the western side of Bristol to Dorrington, also bordering on Warwickshire, is brown clay, generally on a subsoil of blue clay; but there are in this district various mixed patches of red loamy clay on marl, ferruginous clay, or argillaceous loam, light loam on compact limestone, red sand or grit, black loamy soil, and peaty earths of various colors. The rest, for the most part, appears to be a mixed loam, on a stratum of broken rock, found chiefly along the Wiltshire border, and more particularly to the north and north-east of Cirencester.

The principal rivers are the Severn, Isis or Thames, Upper Avon, and Lower Avon; but there are others intimately connected with this county, particularly the Wye, the Frome, the Stroud, &c. The Severn, which rises on the east side of the huge mountain of Plyn Limmon, in the south-east part of Montgomeryshire, is deemed the second commercial river in England, and has been navigable time immemorial. It is of sufficient depth for vessels of from 150 to 200 tons burden, up to the city of Gloucester. The tide flows as far as Tewkesbury, nearly seventy miles from the sea. This county has the honor of containing the source of the prince of English rivers, the Thames. It rises at a place called the Thames' Head, near the village of Cotes, about two miles south-west of Cirencester.

Of the several navigable canals constructed in this country, the most remarkable are, 1. The Thames and Severn canal, which communicates with the latter river through the Stroud canal, and with the former river at the town of Lechlade. It was begun in 1783, and finished in ten years. The summit level is 241 feet above the level of the Stroud canal, and 130 feet above the river Thames at the place of its junction. These rises of level are surmounted by locks, admirably contrived and executed; and in one place it passes under the park of Lord Bathurst, through Sapperton tunnel, and, after being buried for the distance of two miles and five furlongs, again emerges near Cirencester. The breadth of the canal is forty-two feet at the top, and thirty feet at the bottom, and it is constructed for barges adapted to the locks on the river Thames, as well as to those of the canal. This work has, however, been more splendid than useful: the expense has exceeded £250,000, and the tolls are scarcely more than sufficient to defray the current repairs. In fact, it connects two rivers, the navigation of both of which is bad; but especially that of the Thames, and the trade, which once passed through this canal, has been diminished by the opening of the Kennet and Avon, which forms a better medium for the transit of goods from Bristol or Gloucester to London. 2. The Berkley canal, parallel to the river Severn, but which, by avoiding its sinuosities, shortens the navigation twenty miles, was begun in 1794. Though an improvement of importance, it languished many years, and is now scarcely completed. 3. The Hereford and Gloucester canal, designed to connect those two cities, passes near Boyce through a tunnel one mile and a quarter in length, between the Severn and Ledbury, to which place, a distance of seventeen miles, the rise is 183 feet.

The virtues of the MEDICINAL SPAS, at Cheltenham, are too well known to need a particular notice here, particularly after the account we have given of them in our article of that name. They form the point of the greatest resort of fashionable company in the county.

At Clifton, one of the most healthy and pleasant villages in the kingdom, and peculiarly distinguished by the immense acclivities of its rocks, is a celebrated medicinal spring called the hot-well, very anciently known as an efficacious remedy in cases of bodily decay. The water is perfectly pellucid; but in the year 1755, at the time of the great earthquake at Lisbon, it became as red as blood, and so turbid that it could not be drunk.

This county sends eight members to parliament, viz. two for the county, two for the city of Gloucester, two for Cirencester, two for Tewkesbury. The Berkeleys, Chesters, Southwells, Moretons, Duttons, and Guises have successively represented this county. Admiral Berkeley was returned 1780, 1784, 1790, 1796, 1802, 1806, and 1807, till he vacated his seat in favor of his nephew, the eldest son of the late earl Berkeley, respecting whose legitimacy there was such a memorable dispute. Gloucester sent members to parliament as early as the reign of Edward I.

This county has produced the following eminent persons:—Sir Robert Atkyns, a learned judge and able writer. Born 1621. Died 1709. —Sir Robert Atkyns, son of the preceding, wrote the history of this county. Born 1646. Died 1711.—Richard Clutterbrock, an extraordinary mechanical genius, though blind. Born at Rodborough in 1638.—Richard Coriensis, or Richard of Cirencester. Born in that town. He wrote the History of Roman Britain. Several of his MSS. are in different libraries. He was born in the year 1355. Died 1400. The monk Benedict, who wrote the life of St. Dubricius, lived about the year 1120. Born at the city of Gloucester.—William Cartwright, divine, poet,

and dramatic writer. Born 1611. Died 1644.—Edward Chamberlayne, an English historian. Born at Odington, 1616. Died 1703.—Thomas Coxeter, critic and bibliographer. Born at Lechlade, 1682. Died 1747.—Robert of Gloucester, the oldest of our English poets, lived in the time of Henry II., about 1263. He wrote a Chronicle of Britain, in verse, from the age of Brutus to the reign of Henry III.—Richard Graves, an ingenious divine and miscellaneous writer, was author of the Spiritual Quixote, and of a much better work, entitled The Invalid, &c. He was a very learned and able man. Born at Micleton, 1715. Died 1804.—William Guise, a learned divine. Born 1653. Died 1683.—Sir Matthew Hale, a learned and pious judge. Born at Aldersley, 1600. Died 1675.—John Harmer, a famous Greek professor. Born at Churchdown, 1595. Died 1670.—This county had also the honor of giving birth to Dr. Edward Jenner, whose discovery of the vaccine inoculation will convey his name to the latest posterity.—Sir Thomas Overbury, sometimes said to have been a Warwickshire gentleman, was born at Bourton-on-the-Hill, in this county, in 1581; and was poisoned in the tower of London, 1613. He wrote several pieces in prose and verse.—John Taylor, the water poet, was born at Gloucester, 1580. Died 1654.—The learned Dr. Joseph Trapp, was born at Cherington, 1672. Died 1747.—And, lastly, this county gave birth to the zealous and laborious founder of the Calvinistic Methodists, the Rev. George Whitefield. He was born at the Bell Inn, Gloucester, 1714. Died suddenly in America, 1770.

The principal manufactures of the county are those of woollen broad cloths of various sorts, but chiefly superfine, made of Spanish wool; and of fine narrow goods in the stripe and fancy way, to a very great extent. There are also manufactures of thin stuffs, composed of worsted yarn; and of carpets, stocking-frame-knitting, rugs, blankets, flax-spinning, felt hats, &c. There are also some pretty extensive brass, wire, and iron manufactories, &c. &c. The articles of agricultural commerce are cheese, bacon, cyder, perry, and grain of all sorts. Salmon are sent in great quantities to London from this county. The city of Glocester is celebrated for the manufacture of pins, which was introduced in the year 1626, by the public spirit of an individual named John Tilsby, the inventor. This trade affords employment for the laboring part of the inhabitants, but is not carried on so extensively as at the end of the last century; it is hoped, however, that the recent pacification of Europe will be the means of again placing the manufactories in a state of prosperity equal to the most favorable times. Borough-English (whereby lands and estates descend to the youngest son) is observed within the city.

Gloucester, a city of England, the capital of the foregoing county, is situated in the beautiful vale of the Severn, on the left bank of that river, about thirty miles from the Bristol Channel. The Severn here dividing itself into two branches, forms the island of Alney: it is navigable for barges, and at spring tides for brigs. Gloucester is well supplied with water from springs in the neighbourhood; and coal is brought down the Severn from Shropshire and Staffordshire. It is preferred to that of the adjacent collieries for its superior quality; and a considerable quantity is sent by the new railway to Cheltenham. Coal is also procured from the forest of Dean, and brought up the river at an easy rate of carriage. The markets are well furnished with corn, meat, poultry, &c. Gloucester is the see of a bishop, and returns its two members to parliament by 2000 electors. The chief manufactory at Gloucester is that of pins, which is here the most extensive in the kingdom; and a bell foundry has been established here since A.D. 1500, in a family of the name of Radhall. The city forms, with its towers and spires, an imposing appearance from the surrounding country. It is 106 miles west by south of London.

Gloucester is a large but not a populous place, consisting principally of four spacious streets, meeting each other at right angles, near the centre of the city, which take their names from the situation of the gates which originally stood at the bottom of each; as East-Gate Street, West-Gate Street, North-Gate Street, and South-Gate Street; besides some back streets and lanes, chiefly on the west of the city. Where the above four streets meet, a lofty and beautiful cross formerly stood, which was removed in 1750. West-gate is still remaining, though in a ruinous state. The city is well-paved and cleaned; and contains, besides the cathedral, five parish churches, two grammar-schools, called the College and Crypt schools; a blue-coat school, where twenty poor boys are taught reading, writing, and arithmetic, and are afterwards apprenticed to trades; several places of worship for Dissenters, Quakers, &c.; a Jews' synagogue; a county infirmary, erected in 1756; an hospital for the maintenance of fifty-four poor people, with a chaplain, physician, and surgeon; another hospital and chapel dedicated to St. James, for the maintenance of nineteen poor people; a general workhouse, incorporated by act of parliament, for paupers; two commodious market-houses; an elegant theatre; a custom-house; and a county-gaol, erected after the plan of Mr. Howard, on the site of the ancient castle. A noble shire-hall has lately been erected; an elegant assembly and pump room, &c. The mineral springs here are chalybeate, and are thought scarcely inferior to Cheltenham.

The corporation consists of a recorder, twelve aldermen, one of whom is annually chosen mayor, town clerk, chamberlain, forty common-councilmen, and twelve incorporated companies of trades.

The cathedral is considered a very magnificent specimen of Gothic architecture. It was begun on the foundation of a monastery, about the year 1047, by Aldred, bishop of Worcester, afterwards archbishop of York. Abbot Horton, in 1551, built the north aisle, and the great hall, now used as a library; and succeeding abbots enlarged and beautified the venerable pile, until it was made a cathedral by Henry VIII., when he suppressed the monastery. It is 420 feet in length, and 144 in width. From the centre

rises a majestic tower, 198 feet in height, surmounted by two beautiful perforated pinnacles, twenty-four feet in height. This tower contains a peal of eight bells, the tenor of which weighs 6000 pounds.

The choir presents a fine specimen of pointed architecture, and is terminated at the east end by perhaps the largest window in England; composed entirely of painted glass. The canopies of the stalls exhibit a most beautiful specimen of the florid Gothic, and are the admiration of all who visit them. Among the monuments in this cathedral, those of Robert duke of Normandy, and the unhappy Edward II., are most deserving of attention; the former is of wood, with the effigy of the duke; the latter of alabaster. Gloucester was formerly surrounded with walls, defended by a castle, built in the reign of William the Conqueror, and part of which was standing in Leland's time. The city had also at one time a mint. It has three large suburbs, and its boundaries are nearly three miles in circumference. The air is deemed salubrious. The annual average of burials, as registered for ten years, bearing only a proportion to the population of one in thirty-eight.

This town was made a borough by king John, and a corporation by Henry III. Edward I. held a parliament here in 1272, at which several useful laws were enacted, called the Statutes of Gloucester. Richard II. also held a parliament here; and Richard III., who bore the title of duke of Gloucester, gave the city his sword and cap of maintenance, and made it a county of itself, with jurisdiction over the hundreds of Dudston and King's Barton; but these privileges were taken away by act of parliament, after the Restoration, and the walls razed to the ground, because the inhabitants had shut their gates against Charles I. In the city and neighbourhood are many remains of abbeys of black and white friars, and formerly it had eleven churches. In the suburbs are the remains of Lantony Abbey, founded by the earl of Hereford for the monks who were driven by the Welsh from Monmouth. It is now converted into out-buildings belonging to some farms. Markets, Wednesday and Saturday.

GLOVE, *n. s.* & *v. a.* } Sax. glope; Swed.
GLOV'ER, *n. s.* } *glof*; Dan. *klaffaw*, to divide. Old Minsheu asks, with more humor than judgment, 'q. gift-love?' A cover for the hands: one whose trade is to make and sell gloves.

Hire *glove* he toke, of which he wos ful faine;
And, finally, when it was woxen eve,
And al wos wel, he rose and toke his leve.
Chaucer. Troilus and Creseide.

My limbs,
Weakened with grief, being now enraged with grief,
Are thrice themselves; hence therefore, thou nice crutch;
A scaly gauntlet now, with joints of steel,
Must *glove* this hand. *Shakspeare. Henry IV.*

Does he not wear a great round beard like a *glover's* paring knife? *Shakspeare.*

They flew about like chaff i' the' wind;
For haste some left their masks behind,
Some could not stay their *gloves* to find.
Drayton.

The next he preys on is her palm,
That alm'ner of transpiring balm;
So soft, 'tis air but once removed;
Tender as 'twere a jelly *gloved*. *Cleaveland.*

White *gloves* were on his hands, and on his head
A wreath of laurel. *Dryden.*

They called for tea and chocolate,
And fell into their usual chat,
Discoursing with important face
On ribbons, fans, and *gloves*, and lace. *Swift.*

GLOVER (Richard), the author of Leonidas and several other esteemed works, was the son of Richard Glover, a Hamburgh merchant in London, and was born in St. Martin's Lane in 1712. He very early manifested his propensity to poetry; and while at school wrote, amongst other pieces, a poem to the memory of Sir Isaac Newton, prefixed to the view of that author's philosophy, published in 4to. in 1728, by Dr. Pemberton. But, though possessed of talents calculated to excel in literature, he devoted his attention to commerce, and commenced a Hamburgh merchant. One of his earliest friends was Matthew Green, the author of some admirable poems, which in 1737, after his death, were collected and published by Mr. Glover. In 1737 Mr. Glover married Miss Nunn, with whom he received a handsome fortune; and published Leonidas, a poem, in 4to., which soon passed through three editions. It was inscribed to Lord Cobham; and on its first appearance was received with great approbation. Lord Lyttleton, in his Common Sense, and in a poem addressed to the author, praised it in the warmest terms; and Dr. Pemberton published, Observations on Poetry, especially epic, occasioned by the late poem upon Leonidas, 1738, 12mo., merely to point out its beauties. In 1739 Mr. Glover published London, or the Progress of Commerce, 4to., and a ballad entitled Hosier's Ghost. Both these pieces seem to have been written with a view to incite the public to resent the recent conduct of the Spaniards; and the latter had a very considerable effect. The political dissensions at this period raged with great violence, especially in the metropolis; and, at different meetings of the livery, Mr. Glover was called to the chair, and acquitted himself in a very able manner. His talents for public speaking, his knowledge of political affairs, and his information concerning trade and commerce, soon afterwards pointed him out to the merchants of London as a proper person to conduct their application to parliament on the neglect of their trade. He accepted the office; and gave striking proofs of his oratorical powers. In 1744 the duchess of Marlborough died, and by her will left to Mr. Glover and Mr. Mallet £500 each, to write the History of the Duke of Marlborough's Life. It is supposed that Mr. Glover very early renounced his share of it; and Mallet, though he continued to talk of performing the task almost as long as he lived, never made any progress in it. About this period Mr. Glover withdrew a good deal from public notice. He had been honored with the attention of Frederick Prince of Wales, who once presented him with a complete set of the Classics, elegantly bound; and, on his absenting himself on accoun-

of the embarassment in his circumstances, sent him £500. In 1753 Glover produced at Drury-lane his tragedy of Boadicea; which was acted nine nights. Mr. Garrick, Mr. Mossop, Mrs. Cibber, and Mrs. Pritchard, were among the performers; and Dr. Pemberton wrote a pamphlet to recommend it. In 1761 Mr. Glover published Medea, a tragedy, written on the Greek model; but it was not acted until 1767, when it appeared at Drury-lane for Mrs. Yates's benefit. At the accession of his late majesty, having surmounted his difficulties, he was chosen M. P. for Weymouth. In 1770 his poem of Leonidas was republished in 2 vols. 12mo., corrected, and extended from nine books to twelve: several new characters being added, and the old ones placed in new situations. The calamities arising, in June 1772, from the failure of the bank of Douglas, Heron, and Co. in Scotland, occasioned Mr. Glover to take a very active part in settling those complicated concerns. In February 1774 he called the annuitants of that house together, at the King's Arms tavern, and laid proposals before them for the security of their demands, with which they were fully satisfied. He also undertook to manage the interests of the merchants and traders of London concerned in the trade of Germany and Holland, and of the dealers in foreign linens, in their application to parliament in May 1774. Both his speeches on these occasions were published that year. In 1775 he engaged on behalf of the West India merchants in their application to parliament, examined the witnesses, and summed up the evidence, in his usual masterly manner. This speech was also printed. For his exertions in this service, he was complimented with a service of plate, worth £300. Besides an epic poem of considerable length, he in addition to his writings already named left some tragedies and comedies in MS., and a most estimable character as a man, a citizen, and an author. He died November 25th, 1785.

GLOUT, *v. n.* A low word, connected probably with GLOAT, which see. To pout; to look sullen. It is still used in Scotland.

She lurks in midst of all her den, and streaks
From out a ghastly whirlpool all her necks,
Were, *glowting* round her rock, to fish he falls.
Chapman.

Glouting with sullen spight, the fury shook
Her clotted locks, and blasted with each look.
Garth.

GLOW, *v. n., v. a.* & *n. s.* } Saxon ȝloþan;
GLOW'WORM, *n. s.* } Goth. *gloa;* Dut. *gloeyen;* Teut. *gluen;* Wel. *glo;* à Gr. χλιαινω, to make warm, Minsheu. A partial and grateful heat; a warmth which exists in the human frame after exercise; figuratively applied to the ardor of friendship in different degrees; a bright and roseate color; the burning of desire. A small creeping grub with a phosphoric or luminous tail.

The cercles of his eyen in his hed
They *gloweden* betwixen yelwe and red.
Chaucer. The Knightes Tale.

But sithence silence lesseneth not my fire,
But told it flames, and hidden it does *glow*,
I will reveal what ye so much desire. *Spenser.*

On each side her
Stood pretty dimpled boys like smiling Cupids,
With divers coloured fans, whose wind did seem
To *glow* the delicate cheeks which they did cool.
Shakspeare.

His goodly eyes,
That o'er the files and musters of the war
Have *glowed* like plated Mars, now bend, now turn
Their office upon a tawny front. *Id.*

The pale complexion of true love,
And the red *glow* of scorn and proud disdain.
Id.

The *glowworm* shews the mattin to be near,
And 'gins to pale his ineffectual fire. *Id.*

A great light drowneth a smaller that it cannot be seen; as the sun that of a *glowworm*. *Bacon.*

Kunigund, wife to the emperor Henry II., to show her innocency, did take seven *glowing* irons, one after another, in her bare hands, and had thereby no harm. *Hakewill.*

Nor amidst all these triumphs dost thou scorn
The humble *glow-worms* to adorn,
And with those living spangles gild
(O greatness without pride), the bushes of the field.
Cowley.

With smile that *glowed*
Celestial rosy red, love's proper hue. *Milton.*

Not all parts alike, but all alike informed
With radiant light, as *glowing* iron with fire. *Id.*

The man, who first upon the ground
A *glow-worm* spyed, supposing he had found
A moving diamond, a breathing stone;
For life it had, and like those jewels shone;
He held it dear, 'till by the springing day
Informed, he threw the worthless worm away.
Waller.

Clad in a gown that *glows* with Tyrian rays.
Dryden.

A fire which every windy passion blows;
With pride it mounts, and with revenge it *glows*.
Id.

A malicious joy,
Whose red and fiery beams cast through your visage
A *glowing* pleasure. *Dryden and Lee's Oedipus.*

From the mingled strength of shade and light,
A new creation rises to my sight;
Such heavenly figures from his pencil flow,
So warm with life his blended colours *glow*,
Amidst the soft variety I'm lost. *Addison.*

Did not his temples *glow*
In the same sultry winds and scorching heats?
Id. Cato.

You strive in vain
To hide your thoughts from him, who knew too well
The inward *glowings* of a heart in love. *Id.*

Nor would you find it easy to compose
The mettled steeds, when from their nostrils flows
The scorching fire that in their entrails *glows*.
Id. Ovid.

Forced compliments and formal bows
Will shew thee just above neglect;
The fire with which thy lover *glows*,
Will settle into cold respect. *Prior.*

Did Shadrach's zeal my *glowing* breast inspire
To weary tortures, and rejoice in fire. *Id.*

The cord slides swiftly through his *glowing* hands.
Gay.

Here on a couch extend the Cyprian dame,
Let her eye sparkle with the *glowing* flame. *Id.*

A waving *glow* his bloomy beds display,
Blushing in bright diversities of day. *Pope.*

So perish all, whose breast ne'er learned to *glow*
For others' good, or melt at others' woe. *Id.*

Fair ideas flow
Strike in the sketch, or in the picture *glow*. *Id.*

Not the fair fruit that on yon branches *glows*,
With that ripe red th' autumnal sun bestows,
Can move the god. *Id.*
Each pleasing Blount shall endless smiles bestow,
And fair Belinda's blush for ever *glow*. *Id.*
Here clearer stars *glow* round the frozen pole.
Id.

To praise is always hard,
When real virtue fires the *glowing* bard. *Lewis.*
When crept into aged veins,
Love slowly burns, and long remains;
It *glows*, and with a sullen heat,
Like fire in logs, it warms us long.
Shadwell.

Such as suppose that the great stile might happily be blended with the ornamental, that the simple, grave, and majestic dignity of Raffaelle could unite with the *glow* and bustle of a Paulo, or Tintoret, are totally mistaken. *Reynolds.*

Like th' ethereal *glowed* the green expanse.
Savage.

How beautiful she looked! her conscious heart
Glowed in her cheek, and yet she felt no wrong.
Byron.

An emerald aigrette with Haidee's hair in't
Surmounted as its clasp a *glowing* crescent,
Whose rays shone ever trembling but incessant.
Id. Don Juan.

GLOW-WORM, in zoology. See LAMPYRIS.

GLOZE, *v. n.* & *n. s.* } Sax. glepan; Goth.
GLOZEN, *n. s.* } *glosa*; specious; insinuating flattery. To pretend or wheedle.

For ye wol faren well at festes,
And be worm clothed for the cold,
Therefore ye *glosen* goodes hestes,
And begile peple yong and old.
Chaucer. The Plowmannes Tale.

For he could well his *glozing* speaches frame,
To such vaine uses, that him best became.
Spenser. Faerie Queene.

Now to plain dealing; lay these *glozes* by.
Shakspeare.

Which Salique land the French unjustly *gloze*
To be the realm of France. *Id.*

So *glozed* the tempter, and his proem tuned,
Into the heart of Eve his words made way.
Milton.

Man will hearken to his *glozing* lies,
And easily transgress. *Id. Paradise Lost.*

Precious couches full oft are shaked with a fever; If then a bodily evil in a bodily *gloze* be not hidden, shall such morning dews be an ease to the heat of a lover's fire? *Sidney.*

Nor for a *glozing* speech,
Fair protestations, specious marks of friendship.
Philips.

A false *glozing* parasite would call his foolhardiness valour, and then he may go on boldly, because blindly, and, by mistaking himself for a lion, come to perish like an ass. *South.*

GLUCHOV, a town of European Russia, in the southern government of Czernigov, and the chief place of a circle. Clay of a particular quality is found in the neighbourhood, and sent to the porcelain manufactories of Moscow and St. Petersburgh. It contains about 7000 inhabitants, and is sixty miles E. S. E. of Novgorod Sieverskoi.

GLUCINA, from γλυκαινω, to sweeten; a peculiar earth discovered by Vauquelin in the beryl and emerald, and so named from its characteristic property of forming salts of a saccharine taste. Its general properties are, 1. It is white; 2. Insipid; 3. Adhesive to the tongue; 4. Insoluble in water; and, 5, In ammoniac; but, 6, Soluble in the fixed alkalies; 7. In the carbonate of ammoniac; and, 8, In almost all the acids, except the carbonic and phosphoric, and forming salts of a saccharine taste; 9. Infusible; but, 10, Fusible with borax into a transparent glass; 11. It absorbs one-fourth of its carbonic acid; 12. Decomposes the aluminous salts; and, 13, It is not precipitable by well saturated hydro-sulphurets.

Its specific characters, which are not found united in any of the other known earths, are these:—1. Its salts are saccharine, and slightly astringent; 2. It is soluble in the carbonate of ammoniac; 3. It is very soluble in the sulphuric acid by excess; 4. It decomposes the aluminous salts; 5. It is completely precipitated from its solutions by ammoniac; and, 6, Its affinity for the acids is intermediate between magnesia and alumine. 100 parts of beryl contain sixteen of glucina. M. Vauquelin justly remarks that 'in the sciences, a body, a principle, or a property, formerly unknown, though it may often have been used, or even held in the hands, and referred to other simple species, may, when once discovered, be afterwards found in a great variety of situations, and be applied to many useful purposes. Chemistry affords many recent examples of this truth.' Sir H. Davy's researches have rendered it more than probable that glucina is a compound of oxygen, and a peculiar metallic substance, which may be called glucinum. By heating it along with potassium, the latter was converted for the most part into potassa; and dark colored particles, having a metallic appearance, were found diffused through the mass, which regained the earthy character by being heated in the air, and by the action of water. In this last case, hydrogen was slowly disengaged. According to Sir H. Davy, the prime equivalent of glucina would be 3·6 on the oxygen scale, and that of glucinum 2·6. These are very nearly the equivalents of lime and calcium. From the composition of the sulphate, Berzelius infers the equivalent to be 3·2, and that of its basis 2·2.

GLUCK (Christopher), a celebrated musician and composer, was born in Bohemia in 1716. After visiting Italy he came to England in 1745, and published three operas, with little success. He then returned to the continent; and in 1764 produced his Orfeo, which became very popular. This was followed by other pieces of equal celebrity and excellence; and, on going to Paris, he had the honor of introducing a new style of music in that capital. He died possessed of a large fortune, at Vienna, in 1787. He wrote, besides his operas, some able letters on music.

GLUCKSTADT, a well-built town of Denmark, on the Elbe, in the duchy of Holstein. It is near the mouth of that river, at the point of its junction with the Rhu, and has a harbour, which, though incumbered with sand-banks, is much frequented by the Greenland fishery crews. The town is intersected by canals, but fresh water is scarce. It is the seat of the provincial and chief magistracy of Holstein it has also a magazine, arsenal, house of correction. workhouse,

and navigation school. The Jews have a synagogue, and the Roman Catholics a chapel. The town was founded by Christian II. in 1617, who made it the entrepot of the commerce with Iceland. It stands so low that the centre outworks can be laid under water. Population 5200. Twenty-eight miles north-west of Hamburgh.

GLUE, *n. s.* & *v. a.*
GLUE'BOILER, *n. s.*
GLU'ER, *n. s.*
GLU'TINOUS, *adj.*
GLU'TINOUSNESS, *n. s.*
GLU'Y, *n. s.*

Fr. *glu;* Lat. *gluten;* Wel. *gleed.* A viscous body commonly made by boiling the skins of animals to a gelly; any viscous or tenacious matter by which bodies are held one to another; a cement: to join, unite, or cement together: a person whose trade is to make glue, or use it.

Whoso teacheth a fool is as one that *glueth* a potsherd together. *Ecclus.* xxii. 7.

But, sikerly, withouten any fable,
The hors of bras, that may not be remued;
It stant as it were to the ground *yglued.*
Chaucer. The Squieres Tale.

I fear thy overthrow
More than my body's parting with my soul:
My love and fear *glued* many friends to thee.
Shakspeare. Henry VI.

Water, and all liquors, do hastily receive dry and more terrestrial bodies proportionable; and dry bodies, on the other side, drink in waters and liquors; so that, as it was well said by one of the ancients of earthly and watery substances, one is a *glue* to another. *Bacon's Natural History.*

The cause of all vivification is a gentle and proportionable heat, working upon a *glutinous* and yielding substance. *Bacon.*

It is called balsamick mixture, because it is a *gluy* spumous matter. *Harvey on Consumptions.*

Next this marble venomed seat,
Smeared with gums of *glutinous* heat. *Milton.*

Intemperance, sensuality, and fleshly lusts, do debase men's minds and clog their spirits; sink us down into sense, and *glue* us to those low and inferior things. *Tillotson.*

She curbed a groan, that else had come;
And pausing, viewed the present in the tomb
Then to the heart adored devoutly *glued*
Her lips, and, raising it, her speech renewed.
Dryden.

With *gluy* wax some new foundation lay
Of virgin combs. *Id.*

Those wasps in a honey pot are sensual men plunged in their lusts and pleasures; and, when they are once *glued* to them, 'tis a very hard matter to work themselves out. *L'Estrange.*

The driest and most transparent *glue* is the best. *Moxon.*

Whatever is the composition of the vapour, let it have but one quality of being very *gluy* or viscous, and it will mechanically solve all the phænomena of the grotto. *Addison.*

The parts of all homogeneal hard bodies, which fully touch one another, stick together very strongly; and, for explaining how this may be, some have invented hooked atoms, which is begging the question; and others tell us their bodies are *glued* together by rest; that is, by an occult quality, or rather by nothing. *Newton's Opticks.*

To build the earth did chance materials chuse,
And through the parts cementing *glue* diffuse.
Blackmore.

Nourishment too viscid and *glutinous* to be subdued by the vital force. *Arbuthnot on Aliments.*

The flowers of grains, mixed with water, will make a sort of *glue.* *Id.*

Most wounds, if kept clean, and from the air, the flesh will *glue* together with its own native balm. *Derham.*

There is a resistance in fluids, which may arise from their elasticity, *glutinousness,* and the friction of their parts. *Cheyne.*

I hear thee, view thee, gaze o'er all thy charms,
And round thy phantom *glue* my clasping arms.
Pope.

Whose loos er ends are *glued* with brother earth.
Fletcher. Purple Island.

English *glue* is universally allowed to be the best in Europe, partly from the excellency of the materials, and partly from the skill of the manufacturers. *Campbell's Pol. Surv.*

GLUE is differently denominated, according to its preparation, and the various uses it is designed for; as common glue, glove glue, and parchment glue. But the last two are more properly called size. The common, or strong glue, is chiefly used by carpenters, joiners, cabinet-makers, &c. It is made of skins of animals, as oxen, cows, calves, sheep, &c. Whole skins are rarely used for this purpose, but only the shavings, parings, or scraps of them, or the feet, sinews, &c. That made of whole skins, however, is undoubtedly the best; as that made of sinews is the very worst.

In making glue of parings, they first steep them two or three days in water: then, washing them well out, they boil them to the consistence of a thick jelly, which they pass, while hot, through ozier baskets, to separate the impurities; and then let it stand some time to purify it further: when all the filth is settled to the bottom of the vessel, they melt and boil it a second time. They next pour it into flat frames or moulds, whence it is taken out pretty hard and solid, and cut into square pieces or cakes. They afterwards dry it in the wind, in a sort of coarse net; and at last string it to finish its drying. The glue made of sinews, feet, &c., is managed after the same manner; only with this difference, that they bone and scour the feet, and do not lay them to steep. Of this commodity there is a very great exportation from England; the English glue being universally allowed to be the best in Europe, partly from the excellency of the materials, and partly from the skill of the manufacturers. Next to this is the Flanders glue. In both countries it is made by the tanners from fragments of good skins dried with much care. In France it is a separate trade; and the glue-makers pick up their materials as they can, from the several dealers in skins, and boiling these with cow-heels, make their glue; which, as they purchase every thing, must render it dear, as well as of an inferior quality. The best glue is that which is made from the skins of the oldest beasts, especially if a bull's hide is used. Glue is considerably improved in quality by keeping after it is made: and the surest way to try its goodness is to lay a piece of it to steep three or four days; and if it swell considerably without melting, and when taken out resume its former dryness, it is excellent. A glue that will hold against fire or water, it is said, may be made thus:—Mix a handful of quick-lime with four ounces of linseed oil; boil them to a good thickness; then spread

it on tin plates in the shade, and it will become exceedingly hard, but may be easily dissolved over a fire as glue, and will effect the business to admiration. Neumann observes, that glue dissolved in a solution of lapis calaminaris, in spirit of nitre, and afterwards inspissated, forms an extremely slippery tenacious mass, which might be of use for entangling flies, caterpillars, and other insects, if it were not too expensive.

In order to prepare glue for use, set a quart of water on the fire; then put in about half a pound of good glue, and boil them gently together till the glue be entirely dissolved, and of a due consistence. When glue is to be used, it must be made thoroughly hot; after which, with a brush dipped in it, besmear the faces of the joints as quickly as possible: then, clapping them together, rub them lengthwise one upon another, two or three times, to settle them close; and let them stand till they are dry and firm. Mr. Boyle gives the following receipt for preparing a fine strong glue from isinglass: steep the isinglass for twenty-four hours in common brandy. When the menstruum has opened and mollified the isinglass, they must be gently boiled together, and kept stirring till they appear well mixed; and till a drop thereof, suffered to cool, turns into a strong jelly. Then strain it, whilst hot, through a clean linen cloth into a vessel to be kept close stopped. A gentle heat suffices to dissolve this glue into a transparent and almost colorless fluid, but very strong; so that pieces of wood glued together with it will break elsewhere, rather than in the place where they are joined. See ISINGLASS.

GLUM, *adj.* A low cant word formed by corrupting gloom. Sullen; stubbornly grave.

Some, when they hear a story, look *glum*, and cry, Well, what then? *Guardian.*

GLUT, *v. a.* & *n. s.* GLUT'TON, *n. s.* GLUT'TONIZE, *v. n.* GLUT'TONOUS, *adj.* GLUT'TONOUSLY, *adv.* GLUT'TONY, *n. s.* French, *engloutir*; Wel. *gluth*; Lat. *glutio*; Gr. γλυζω. To swallow; to gorge; to eat to satiety. One given to excessive and luxurious feeding; voracity of appetite; an obstruction. It appears to comprehend the ideas of desire, greediness, and satiety. It is applied figuratively to inordinate love of any amusement or pursuit.

Glotonie is unmesurable appetit to ete or to drinke; or elles to do in ought to the unmesurable appetit.

* * * * * *

He that is usant to this sinne of *glotonie*, he ne may no vice withstond he must be in servage of all vices. *Chaucer. The Persones Tale.*

When they would smile and fawn upon his debts,
And take down th' interest in their *glutt'nous* maws. *Shakpeare.*

The exceeding luxuriousness of this *gluttonous* age, wherein we press nature with overweighty burdens, and, finding her strength defective, we take the work out of her hands, and commit it to the artificial help of strong waters. *Raleigh.*

If you pour a *glut* of water upon a bottle, it receives little of it. *Ben Jonson's Discoveries.*

The ambassador, making his oration, did so magnify the king and queen, as was enough to *glut* the hearers. *Bacon.*

The Chinese eat horseflesh at this day, and some *gluttons* have used to have catsflesh baked. *Id.*

Let him but set the one in balance against the other, and he shall find himself miserable, even in the very *glut* of his delights. *L'Estrange.*

Gluttony is the source of all our infirmities, and the fountain of all our diseases. *Burton.*

The rest bring home in state the happy pair
To that last scene of bliss, and leave them there;
All those free joys insatiably to prove,
With which rich beauty feasts to *glutton* love. *Cowley.*

Love breaks friendship, whose delights
Feed, but not glut our appetites. *Denham.*

Disgorged foul
Their devilish *glut*, chained thunderbolts and hail
Of iron globes. *Milton's Paradise Lost.*

So death
Shall be deceived his *glut*; and with us two
Be forced to satisfy his rav'nous maw. *Milton.*

Their sumptuous *gluttonies* and gorgeous feasts,
On citron tables or Atlantick stone. *Id.*

With death's carcase *glut* the grave. *Id.*

Well observe
The rule of not too much, by temperance taught
In what thou eat'st and drink'st; seeking from thence
Due nourishment, no *gluttonous* delight. *Id.*

The menstruum, being already *glutted*, could not act powerfully enough to dissolve it. *Boyle.*

Well may they fear some miserable end,
Whom *gluttony* and want at once attend. *Dryden.*

His faithful heart, a bloody sacrifice,
Torn from his breast, to *glut* the tyrant's eyes. *Id.*

A sylvan scene, which, rising by degrees,
Leads up the eye below, nor *gluts* the sight
With one full prospect. *Id.*

What way remove
His settled hate, and reconcile his love,
That he may look propitious on our toils,
And hungry graves no more be *glutted* with our spoils. *Id.*

Through Macer's gullet she runs down,
While the vile *glutton* dines alone;
And, void of modesty and thought,
She follows Bibo's endless draught. *Prior.*

I found
The fickle ear soon *glutted* with the sound,
Condemned eternal changes to pursue,
Tired with the last, and eager of the new. *Id.*

He attributes the ill success of either party to their *glutting* the market, and retailing too much of a bad commodity at once. *Arbuthnot.*

The inhabitants of cold moist countries are generally more fat than those of warm and dry; but the most common cause is too great a quantity of food, and too small a quantity of motion; in plain English, *gluttony* and laziness. *Id.*

The water some suppose to pass from the bottom of the sea to the heads of springs, through certain subterranean conduits or channels, until they are by some *glut*, stopped, or, by other means, arre ted in their passage. *Woodward.*

Gluttons in murder, wanton to destroy,
Their fatal hearts so impiously employ. *Grenville.*

A *glut* of study and retirement in the first part of my life, cast me into this; and this will throw me again into study and retirement. *Pope to Swift.*

If a *glutton* was to say, in excuse of his *gluttony*, that he only eats such things as it is lawful to eat, he would make as good an excuse for himself as the

greedy, covetous, ambitious tradesmen, that should say, he only deals in lawful business. *Law.*

That when he now was gorged with crammed down store,
And porter wanting room had shut the door,
The *glutton* sighed, that he could gormandize no more.
Fletcher's Purple Island.

There is a morbid sort of GLUTTONY, called fames canina, i. e. dog-like appetite, which sometimes occurs, and renders the person seized with it an object of pity and of cure as in other diseases. See BULIMA. King James I., when a man was presented to him who could eat a whole sheep at one meal, asked, 'What could he do more than another man?' and being answered 'He could not do so much,' said 'Hang him then; for it is unfit a man should live that eats as much as twenty men, and cannot do so much as one.' The emperor Clodius Albinus devoured more than a bushel of apples at once. He eat 500 figs to his breakfast, 100 peaches, ten melons, twenty pounds of grapes, 100 gnat-snappers, and 400 oysters. Hardi Canute, the last of the Danish kings in England, was so great a glutton, that a historian calls him Bocca di Porco, 'Swine's-mouth.' His tables were covered four times a day with the most costly viands that either the air, sea, or land, could furnish; and as he lived he died; for, revelling at a banquet at Lambeth, he fell down dead. One Phagon, in the reign of Aurelianus, eat at one meal, it is said, a whole boar, 100 loaves of bread, a sheep, and a pig, and drank above three gallons of wine. Fuller says, that Nicholas Wood, of Harrison, in Kent, eat a whole sheep at one meal, raw; at another, three dozen of pigeons. At Sir William Sidley's he eat as much victuals as would have sufficed thirty men. At lord Wotton's he devoured at one dinner eighty-four rabbits. Mallet, a counsellor at law, in the reign of Charles I., eat at one time a dinner provided in Westminster for thirty men. He lived to near sixty years of age, but, during the seven last years of his life, eat as moderately as other men. Happily in modern times these heroes of the belly are only considered as fit companions for the heroes of the whip, and of pugilism.

GLYCAS. See GLICAS.

GLYCINE, knobbed-rooted liquorice-vetch, a genus of the decandria order, and diadelphia class of plants; natural order thirty-second, papilionaceæ: CAL. bilabiate: COR. carina turning back the vexillum with its point.

1. G. abrus, is a native of Egypt and the Indies. The stalks and roots are very sweet to the taste. Herman affirms, that the juice obtained from them by decoction is little inferior to liquorice, whence its name of wild liquorice in those parts of America where it is native.

2. G. frutescens, the Carolina kidney-bean tree. It has shrubby climbing stalks, twining round any support, fifteen or twenty feet high, adorned with pinnated leaves of three pairs of follicles, terminated by an odd one, and from the axillas clusters of large bluish-purple flowers, succeeded by long pods like those of the climbing kidney-bean. It flowers in June and July, but the seeds do not ripen in this country. It is cultivated in our gardens, however, and easily propagated, either by seeds imported from America, or by layers.

GLYCIRRHIZA, liquorice, a genus of the decandria order, and diadelphia class of plants; natural order thirty-second, papilionaceæ: CAL. bilabiate; the upper lip tripartite, and the under one entire; the legume ovate and compressed. There are six species. The chief are,

1. G. echinata, the prickly-podded liquorice, resembling the common sort, only the pods are prickly: and

2. G glabra, the common liquorice, with long, thick, creeping roots, striking several feet deep into the ground; upright, firm, annual herbaceous stalks, three or four feet high, garnished with winged leaves of four or five pairs of oval lobes, terminated by an odd one; and from the axillas erect spikes of pale blue flowers in July, succeeded by short smooth pods. The root is the useful part, which is replete with a sweet balsamic, pectoral juice, much used in all compositions for coughs, and disorders of the stomach. Both these species are very hardy perennials; but this last is the sort commonly cultivated for use, its roots being fuller of juice, and sweeter than the other. The roots are perennial: but the stalks rise in spring, and decay in autumn. They are propagated by cuttings of the small roots issuing from the sides of the main ones near the earth, divided into lengths of six or eight inches, each having one or more good buds. The proper season for procuring the sets for planting is in open weather, from October to March; but from the middle of February till the middle of March is rather the best season for planting. An open situation is to be preferred. The soil ought to be a light loose temperature, and three or four feet deep: for the roots of liquorice will arrive at that depth and more, and the longer the roots the more valuable they are. The ground should be trenched three spades deep; then proceed to plant the sets, by line and dibble, a foot distant in each row: putting them perpendicular into the ground, with the tops about an inch under the surface; let the rows be a foot or a foot and a half asunder. The London gardeners sow a crop of onions on the same ground the first year; which might be done without detriment to the liquorice or the onions; as the liquorice does not rise above ten or twelve inches the first summer; keep the ground clean from weeds by hoeing. If there be a crop of onions, use the small hoe, cutting out the onions to four or five inches distant, clearing away such as grow immediately close to the liquorice plants; and, when the onions are gathered, give the ground a thorough hoeing with a large hoe, to loosen the surface, and destroy all weeds; and, in autumn, cut down the decayed stalks of the liquorice, and nothing more is necessary to be done till February or March, when it is proper to give a slight digging between the rows. During spring and summer keep down all weeds by broad hoeing; and, in autumn, when the stalks are in a decaying state, cut them down to the surface of the earth. In three years after planting, the roots of the liquorice will be fit to take up. The proper season for this is from the beginning of November till February; for they should neither be

taken up before the stalks are fully decayed, nor deferred till late in spring, otherwise the roots will be apt to shrivel and diminish in weight. In taking them up, the small side roots are trimmed off, the best divided into lengths for fresh sets, and the main roots tied in bundles for sale. Sell them as soon as possible after they are taken up, before they lose much of their weight. They are sold to the druggists from about 20*s*. to 40*s*. per cwt.; and an acre of ground has produced 3000 and upwards, which have been sold for above £60; but the price is commonly in proportion to the goodness of the roots. This plant is cultivated in most countries of Europe, for the sake of its root. British liquorice is preferable to foreign; this last being generally mouldy, which this root is very apt to become, unless kept in a dry place. The powder of liquorice usually sold is often mingled with flour, and probably too often with substances not quite so wholesome; the best sort is of a brownish-yellow color (the fine pale yellow being generally sophisticated), and of a very rich sweet taste, much more agreeable than that of the fresh root. Liquorice is almost the only sweet that quenches thirst; whence it was called by the Greeks *ἀδιψον*. Galen says, that it was employed in this intention in hydropic cases, to prevent the necessity of drinking. Fuller, in his Medicina Gymnastica, recommends it as a very useful pectoral; and says it softens acrimonious humors, and is gently detergent. An extract is directed to be made from it in the shops. It is chiefly brought from abroad, though the foreign extract is not equal to such as is made with proper care in Britain.

GLYN, *n. s.* Irish *gleann*, *glyn*, plural; Erse. *glenn*, Scott. A hollow between two mountains.

Though he could not beat out the Irish, yet he did shut them up within those narrow corners and *glyns* under the mountain's foot. *Spenser.*

GMELIN (John George), a celebrated German botanist and traveller, was born at Tubingen in 1709, and took the degree of M. D. at the university there in 1727. He then went to Petersburgh, and was made a member of the Imperial Academy; and in 1731 professor of chemistry and natural history. He was employed in 1733 in an expedition to explore the boundaries of Siberia, and in 1747 visited his native country. He died of a fever at Petersburgh in May, 1755, leaving a valuable Flora Siberica, seu Historia Plantarum Siberiæ, 1747, 1749, 2 vols. 4to., to which two parts were added by his nephew; and Travels through Siberia, written in German, 4 vols. 8vo.

GMELIN (Samuel Theophilus), nephew of the above, was born at Tubingen in 1743, where he took the degree of M. D. in 1763. He also was distinguished for his acquaintance with natural history, and made professor in the Imperial Academy at Petersburgh. The Russian government further employed him with professor Guldenstadt, on an expedition of discovery to the provinces on the Caspian, where Gmelin was made a prisoner by a Tartar chief; who treated him with so much harshness, that he died in confinement, July, 1774. He published Historia Fucorum, Petrop. 1768, 4to.; and an account of his travels appeared in 4 vols. 4to., 1771, 1774, and 1786, the last volume being edited by M. Pallas.

GMELIN (John Frederick), a third eminent natural philosopher of the same family, was also a native of Tubingen, and studied at that university, and at Gottingen, where he obtained the professorship of chemistry and natural history. He wrote Onomatologia Botanica, 9 vols. 8vo.; Apparatus Medicaminum, 2 vols. 8vo.; and other works on chemistry, mineralogy, and natural history; but he is best known as the editor of the Systema Naturæ, of Linnæus, 9 vols. 8vo., Leipsic, 1788. He died at Gottingen in May, 1805. He made some useful discoveries of vegetable and mineral dyeing substances.

GMELINA, in botany, a genus of the angiospermia order, and didynamia class of plants; natural order fortieth, personatæ: CAL. nearly quadridentated: COR. campanulated, or bell-shaped; there are two bipartite, and two simple antheræ; the fruit is a plum, with a bilocular kernel.

GNA, or AGNO, a river of Italy, in maritime Austria, which rises in the Vicentine Mountains, runs through the ci-devant Venetian district of Cologna, dividing it into two nearly equal parts, and, after joining the Bachiglione, falls into the Po.

GNADENHUETTEN, the name of three settlements of the Moravians or United Brethren in North America. One is in Pennsylvania, on the south-west coast of Lehighnon; another on Muskingum River; and another on the Huron, twenty-two miles from lake St. Clair, and twenty-eight north-west of Detroit.

GNAPHALIUM, cudweed, goldylocks, eternal or everlasting flower, &c., a genus of the polygamia superflua order, and syngenesia class of plants, natural order forty-ninth, compositæ: receptacle naked; the pappus feathered: CAL. imbricated, with the marginal scales roundish, parched, and colored. There are 146 species; the most remarkable of which are,

1. G. arboreum, or tree gnaphalium, with a woody stem, branching four or five feet high, narrow sessile leaves, with revolute borders, smooth on their upper side, and roundish bunches of pale yellow flowers.

2. G. margaritaceum, the pearly-white eternal flower, has creeping, very spreading roots, crowned with broad, spear-shaped, white, hoary leaves; herbaceous, thick, woolly stalks, a foot and a half high, branching outward, garnished with long, acute-pointed, white, woolly leaves, and terminated by a corymbose cluster of yellowish flowers, which appear in June and July, and are very ornamental.

3. G. odoratissimum, the sweet-scented eternal flower, has shrubby winged stalks, branching irregularly a yard high, with corymbose clusters of bright yellow flowers, changing to a dark yellow.

4. G. orientale, the oriental goldylocks, has three varieties, with yellow, gold-colored, and white silvery flowers. They have shrubby stalks, rising two or three feet high.

5. G. plantaginifolium, has large woolly radi-

cal leaves, decumbent running roots, and herbaceous simple stalks, rising six or eight inches, terminated by a corymbus of white flowers in June, July, &c.

6. G. stœchas, has a shrubby stalk, dividing into slender branches, three feet long, terminated by corymbose clusters of yellow flowers, appearing in May and June.

The second, fifth, and sixth sorts are hardy, and will thrive in any soil or situation. The second and fifth increase exceedingly by their roots; and the sixth is easily propagated by slips. The first, third, and fourth species are somewhat tender; and therefore should be kept in pots, to be sheltered in a green-house or garden-frame in winter. Others may be planted in the full ground, in a dry and warm situation, especially the orientale and its varieties, and likewise the odoratissimum; for these two species will struggle tolerably through an ordinary winter, and make a pretty appearance during summer. All these are propagated by slips or cuttings of their shoots. The flowers of all these species will retain their beauty for years, if carefully gathered in a dry day, soon after they are blown.

GNAR, *v. n.* GNARL, *v. n.* GNARL'ED, *adj.* } Sax. ȝnyṙnan; Belg. *gnarren.* To growl; to murmur or snarl; gnar, nar, or nurr, is a Staffordshire word for knots of wood.

He was short shuldered, brode a thikke *gnarre*,
Ther was no dore that wolde heve of barre.
Chaucer. Prologue to Cant. Tales.

When he 'gan to rear his bristles strong,
And felle *gnarr*, until day's enemy
Did him appease. *Spenser.*

Thus is the shepherd beaten from thy side,
And wolves are *gnarling* who shall gnaw thee first.
Shakspeare

Gnarling sorrow hath less power to bite
The man that mocks at it, and sets it light.
Id. Richard II.

Merciful heav'n!
Thou rather with thy sharp and sulphrous bolt
Split'st the unwedgable and *gnarled* oak,
Than the soft myrtle. *Id. Measure for Measure.*

The *gnarring* porter durst not whine for doubt;
Still were the furies while their sovereign spoke.
Fairfax.

GNASH, *v. a.* & *v. n.* Dutch, *knaschen.* To grind the teeth, or strike them violently together; figuratively descriptive of rage and passion.

He shall *gnash* with his teeth, and melt away.
Psal. cxii. 10.

They *gnashed* upon me with their teeth.
Id. xxxv. 16.

There shall be weeping and *gnashing* of teeth.
Matt. viii.

Shewe forthe thy doctrine; be not ought agaste;
I woll the supporte; loke thou doe no spare
Maugre age, although that he frete or *gnaste*.
Chaucer. The Prologue to the Remedie of Love.

His great iron teeth he still did grind
And grimly *gnash*, threatening revenge in vain.
Spenser.

They him laid
Gnashing for anguish, and despite and shame,
To find himself not matchless. *Milton.*

The seer, who could not yet his wrath asswage,
Rowled his green eyes, that sparkled with his rage,
And *gnashed* his teeth. *Dryden's Virgil.*

With boiling rage Atrides burned
And foam betwixt his *gnashing* grinders churned.
Dryden.

He now, with pleasure, views the gasping prize,
Gnash his sharp teeth, and roll his blood-shot eyes.
Gay's Rural Sports.

GNAT, *n. s.* GNATFLOWER, *n. s.* GNA'TSNAPPER. *n. s.* } Saxon, ȝnæt, from gnaw. A small stinging insect: used proverbially for any thing very small. A flower, otherwise called the bee-flower. A bird so called because he lives by catching gnats.

Ye blind guides, which strain at a *gnat* and swallow a camel. *Matt.* xxiii. 24.

Not worth, to thee as in comparison
The mountance of a *gnat*.
Chaucer. The Manciples Tale.

Whom, thus at point prepared, to prevent,
A little noursling of the humid ayre,
A *gnat* unto the sleepie shepheard went.
Spenscr. Virgils Gnat.

Her whip of cricket's bone, the lash of film;
Her waggoner, a small grey-coated *gnat*.
Shakspeare.

They deny that any bird is to be eaten whole, but only the *gnatsnapper*. *Hakewill on Providence.*

GNAT, in zoology. See CULEX.

GNAT FLOWER. See OPHRYS.

GNAW, *v. a.* & *v. n.* GNAWER, *n. s.* } Sax. ȝnaȝan; Teut. *knaghen;* Goth. *gnata* (see GNAT). Dan. *gnawe.* To eat by degrees; to corrode; to bite in agony, or rage; to wear away.

They *gnawed* their tongues for pain. *Rev.* xvi. 10.

The fomy stedes on the golden bridle
Gnawing. *Chaucer. The Knightes Tale.*

His children wenden, that for hunger it wos
That he is armes *gnawe*, and not for wo.
Id. The Monkes Tale.

Like rotten fruit I fall, worn like a cloth,
Gnawn into rags by the devouring moth. *Sandys*

See the hell of having a false woman: my bed shall be abused, my coffers ransacked, my reputation *gnawn* at. *Shakspeare.*

I thought I saw a thousand fearful wrecks,
A thousand men that fishes *gnawed* upon.
Id. Richard III.

Gnawing with my teeth my bonds asunder,
I gained my freedom. *Id. Comedy of Errors.*

A knowing fellow, that would *gnaw* a man
Like to a vermine, with his hellish braine,
And many an honest soule, even quick had slain.
Chapman.

I might well, like the spaniel, *gnaw* upon the chain that ties me; but I should sooner mar my teeth than procure liberty. *Sidney.*

He comely fell, and dying *gnawed* the ground.
Dryden.

His bones clean picked; his very bones they *gnaw*.
Id.

To you such scabbed harsh fruit is given, as raw
Young soldiers at their exercising *gnaw*.
Id. Juvenal.

A lion, hampered in a net, called to a mouse to help him out of the snare: the mouse *gnawed* the threads to pieces, and set the lion at liberty.
L'Estrange.

Critics must excuse me, if I compare them to certain animals called asses, who by *gnawing* vines originally taught the great advantage of pruning them.
Shenstone.

GNESNA, GNESNO, or GNIESNO, a large old town of Russian Poland, once the capital of

Great Poland, and the see of an archbishop, who was primate of Poland. It is said to have been the first town built in the kingdom, and was formerly very considerable. Here are still eleven churches, and four religious houses and seminaries. It is, however, very thinly inhabited, and remarkable for nothing but its annual horse and cattle fair. Inhabitants 3500, including 1000 Jews. It is 150 miles west of Warsaw, and thirty east by north of Posen.

GNETUM, in botany, a genus of the monadelphia order, and monœcia class of plants. The omentum of the male is a single scale: COR. none, and but one filament with a pair of antheræ: CAL. of the female of the same form: COR. none; the style with the stigma is trifid; the fruit is a monospermous plum. Species one only; an East Indian herb.

GNIDIA, in botany, a genus of the monogynia order, and octandria class of plants: CAL. funnel-shaped and quadrifid, with four petals inserted into it: there is one seed somewhat resembling a berry. Species sixteen; all Cape plants.

GNOMES, GNOMI, imaginary beings who, according to the cabbalists, inhabit the inner parts of the earth. They are supposed to be small in stature, and guardians of quarries, mines, &c.

GNO'MON, *n. s.* Gr. *γνώμων*. The hand or pin of a dial.

There were from great antiquity sun-dials, by the shadow of a style or *gnomon*, denoting the hours of the day. *Browne.*

The *gnomon* of every dial is supposed to represent the axis of the world, and therefore the two ends or extremities thereof must answer directly to the North and South pole. *Harris.*

GNOMON. See DIAL and DIALLING. The word *γνωμων* literally implies something that makes a thing known; as the stile of a dial makes the hour known.

GNOMONICS, *n. s.* Gr. *γνωμονικὴ*. A science which makes part of the mathematics: it teaches to find a just proportion of shadows for the construction of all kinds of sun and moon dials, and for knowing what o'clock it is by means thereof; as also of a gnomon or stile, that throws off the shadow for this purpose.—Trevoux.

GNOSTICS, from *γνωσις*, knowledge, ancient heretics, famous from the first rise of Christianity, principally in the east. It appears, from several passages of Scripture, particularly 1 John ii. 18; 1 Tim. vi. 20; and Col. ii. 8; that many persons were infected with the Gnostic heresy in the first century; though the sect did not render itself conspicuous either for numbers or reputation before the time of Adrian, when some writers erroneously date its rise. The name was adopted by this sect, on the presumption that they were the only persons who had the true knowledge of Christianity. Accordingly they looked on all other Christians as simple, ignorant, and barbarous persons, who explained and interpreted the sacred writings in a low, literal, and unedifying signification. Gnostics afterwards became a generical name, comprehending divers sects and parties of heretics who rose in the first centuries, and who, though they differed among themselves as to circumstances, yet all agreed in some common principles. They corrupted the doctrine of the gospel by a profane mixture of the tenets of the original philosophy, concerning the origin of evil and the creation of the world. Such were the Valentinians, Simonians, Carpocratians, Nicolaitans, &c.

GNOSTICS sometimes also occurs in a good sense in the ancient ecclesiastical writers, particularly Clemens Alexandrinus, who, in the person of his Gnostic, describes the characters and qualities of a perfect Christian. This point he labors in the seventh book of his Stromata, where he shows that none but the Gnostic, or learned person, has any true religion. In this sense the father uses Gnostics, in opposition to the heretics of the same name; affirming that the true Gnostic is grown old in the study of the Holy Scripture; and that he preserves the orthodox doctrine of the apostles and of the church; whereas the false Gnostic abandons all the apostolical traditions, as imagining himself wiser than the apostles.

GNOSTICS was sometimes also more particularly used for the successors of the Nicolaitans and Carpocratians, in the second century, upon their laying aside the names of the first authors. Such as would be thoroughly acquainted with all their doctrines, reveries, and visions, may consult Irenæus, Tertullian, Clemens Alexandrinus, Origen, and St. Epiphanius; particularly the first of these writers, who relates their sentiments at large, and confutes them. Indeed he dwells more on the Valentinians than any other sect of Gnostics; but he shows the general principles on which all their mistaken opinions were founded, and the method they followed in explaining Scripture. He accuses them of introducing into religion certain vain and ridiculous genealogies, i. e. a kind of divine processions or emanations, which had no other foundation but in their own wild imagination. The Gnostics confessed that these æons, or emanations, were nowhere expressly delivered in the sacred writings; but insisted that Jesus Christ had intimated them in parables to such as could understand them. They built their theology, not only on the gospels and the epistles of St. Paul, but also on the law of Moses and the prophets. Their persuasion that evil resided in matter, as its centre and source, made them treat the body with contempt, discourage marriage, and reject the doctrine of the resurrection of the body and its re-union with the immortal spirit. Their notion, that malevolent genii presided in nature, and occasioned diseases and calamities, wars and desolations, induced them to apply themselves to the study of magic, in order to weaken the powers or suspend the influence of their malignant agents. The Gnostics considered Jesus Christ as the Son of God, and inferior to the Father, who came into the world for the rescue and happiness of miserable mortals, oppressed by matter and evil beings; but they rejected our Lord's humanity, on the principle that every thing corporeal is essentially and intrinsically evil; and therefore the greatest part of them denied the reality of his sufferings. They set a great value on the beginning of the gospel of St.

John, where they fancied they saw a great deal of their æons or emanations, under the terms the Word, the Life, the Light, &c. They divided all nature into three kinds of beings, viz. hylic, or material; psychic, or animal; and pneumatic, or spiritual. On the like principle they also distinguished three sorts of men: material, animal, and spiritual. The first, who were material and incapable of knowledge, inevitably perished, both soul and body; the third, such as the Gnostics themselves pretended to be, were all certainly saved; the psychic or animal, who were the middle between the other two, were capable either of being saved or damned, according to their good or evil actions. With regard to their moral doctrines and conduct they were much divided. The greatest part of this sect adopted very austere rules of life, recommended rigorous abstinence, and prescribed severe bodily mortifications, with a view of purifying and exalting the mind. However, some maintained that there was no moral difference in human actions; and thus, confounding right with wrong, they gave a loose rein to all the passions, and asserted the innocence of following blindly all their motions, and of living by their tumultuous dictates. They supported their opinions and practice by various authorities; some referred to fictitious and apocryphal writings of Adam, Abraham, Zoroaster, Christ, and his apostles; others boasted that they had deduced their sentiments from secret doctrines of Christ, concealed from the vulgar; others affirmed that they arrived at superior degrees of wisdom by an innate vigor of mind; and others asserted that they were instructed in these mysterious parts of theological science by Theudas a disciple of St. Paul, and by Matthias one of the friends of our Lord. The tenets of the ancient Gnostics were revived in Spain in the fourth century, by a sect called the Priscillianists. At length the name Gnostic, which originally was glorious, became infamous, by the idle opinions and dissolute lives of the persons who bore it.

GNOU, or GNU, in zoology. See CAPRA.

GO, *v. n.* pret. *I went; I have gone.* Sax. gan; Goth. and Swed. *ga.* This was probably changed to *gone*, or *gang*, then contracted to *go*. Went is the preterite of the old word *wend*. The primary idea is progression, or advancement, whether from place to place, or from one degree to another. It is opposed to *come*.

To walk; to move step by step.

You know that love
Will creep in service where it cannot *go*.
Shakspeare.

After some months those muscles became callous; and, having yielded to the extension, the patient makes shift to *go* upon it though lamely.
Wiseman's Surgery.

To move; not stand still.

Rise, let us be *going*. *Matt.* xxvi. 46.

But now I wol again to Custance *go*.
Chaucer. The Man of Lawes Tale.

When all sins are old in us,
And *go* upon crutches, covetousness
Does but then lie in her cradle. *Decker.*

When they asked for thair own
He was broke and was *gone*,
And his creditors all left to sorrow. *Marvell.*

Go, then, well worthy of the praise ye seek,
And shew the shame ye might conceal at home.
Cowper.

To walk solemnly.

If there be cause for the church to *go* forth in solemn procession, his whole family have such business come upon them that no one can be spared.
Hooker.

To walk leisurely; not run.

And must I *go* to him?
—Thou must run to him; for thou hast staid so long, that *going* will scarce serve the turn. *Shakspeare.*

To march or walk a-foot.

I will only *go* through on my feet. *Num.* xx. 19.

To travel; to journey.

From them I *go*
This uncouth errand sole. *Milton.*

To proceed; to make a progress.

Thus others we with defamation wound,
While they stab us; and so the jest *goes* round.
Dryden.

To remove from place to place.

I am in blood
Stept in so far, that, should I wade no more,
Returning were as tedious as *go* o'er. *Shakspeare.*

To depart from a place; to remove from a place: the opposite of *to come*.

I will let you *go*, that ye may sacrifice, only you shall not *go* very far away. *Ex.* viii. 28.

And when she had so said she *went* her way.
John xi. 28.

I hope it be not *gone* to tell my lord
That I kiss aught but him. *Shakspeare.*

At once, good-night:
Stand not upon the order of your *going*,
But *go* at once. *Shakspeare. Macbeth.*

Colchester oysters are put into pits, where the sea *goeth* and cometh. *Bacon's Natural History.*

A young tall squire
Did from the camp at first before him *go*. *Cowley.*

Then I concur to let him *go* for Greece,
And wish our Egypt fairly rid of him. *Dryden.*

Go first the master of thy herds to find,
True to his charge, a loyal swain and kind.
Pope.

To move or pass in any manner, or to any end.

Put every man his sword by his side, and *go* in and out from gate to gate throughout the camp.
Ex. xxxii. 27.

The mourners *go* about the streets. *Eccles.* xii. 5.

The sun shall *go* down over the prophets, and the day shall be dark over them. *Mac.* iii. 6

Though the vicar be bad, or the parson be evil,
Go not for thy tything thyself to the devil. *Tusser.*

She may *go* to bed when she list; all is as she will.
Shakspeare.

You did wish that I would make her turn;
Sir, she can turn and turn and still *go* on. *Id.*

I am glad to see your lordship abroad: I heard say your lordship was sick: I hope your lordship *goes* abroad by advice. *Id.*

The sun, which once did shine alone,
Hung down his head, and wished for night,
When he beheld twelve suns for one
Going about the world, and giving light.
Herbert.

This seen the rest at awful distance stood,
As if they had been there as servants set,
To stay, or to *go* on, as he thought good,
And not pursue, but wait on his retreat. *Dryden.*

Turn not children *going*, till you have given them all the satisfaction they are capable of. *Locke.*

History only acquaints us that his fleet *went* up the Elbe, he having carried his arms as far as that river. *Arbuthnot.*

The last advice I give you relates to your behaviour when you are going to be hanged, which, either for robbing your master, for house-breaking, or *going* upon the highway, may very probably be your lot. *Swift's Directions to the Footman.*

Those who come for gold will *go* off with pewter and brass, rather than return empty. *Swift.*

Careless what others of my choice may deem,
I long, where Love and Fancy lead, to *go*
And meditate on heaven—enough of earth I know. *Beattie.*

To pass in company with others.

Thou shalt again be adorned with thy tabrets, and shalt *go* forth in the dances of them that make merry. *Jer.* xxxi. 4.

He *goeth* in company with the workers of iniquity, and walketh with wicked men. *Job.*

Away, and with thee *go* the worst of woes,
That seekest my friendship, and the gods my foes, *Chapman.*

Whatever remains in story of Atlas, or his kingdom of old, is so obscured with age or fables, that it may go along with those of the Atlantick islands. *Temple.*

To proceed in any course of life, good or bad.

And the Levites that are *gone* away far from me, when Israel *went* astray, which *went* astray away from me after their idols, they shall even bear their iniquity. *Ezek.* xliv. 10.

To proceed in mental operations.

If I had unwarily too far engaged myself for the present publishing it, truly I should have kept it by me till I had once again *gone* over it. *Digby on the Soul. Dedication.*

Thus I have *gone* through the speculative consideration of the Divine Providence. *Hale.*

If we *go* over the laws of Christianity, we shall find that, excepting a few particulars, they enjoin the same things, only they have made our duty more clear and certain. *Tillotson.*

In their primary qualities we can *go* but a very little way. *Locke.*

I *go* over some parts of this argument again, and enlarge a little more upon them. *Id.*

They are not able all their life-time to reckon, or regularly *go* over any moderate series of numbers. *Id.*

I hope, by *going* over all these particulars, you may receive some tolerable satisfaction about this great subject. *South.*

To take any road.

I will *go* along by the highway; I will neither turn to the right hand, nor to the left. *Deut.* ii. 27.

Who shall bemoan thee? Or who shall *go* aside to ask how thou doest? *Jer.* xv. 5.

His horses *go* about
Almost a mile. *Shakspeare. Macbeth.*

I have endeavoured to escape into the ease and freedom of a private scene, where a man may *go* his own way and his own pace. *Temple.*

To march in a hostile or warlike manner.

We be not able to *go* up against the people; for they are stronger than we. *Numb.* xiii. 31.

Let us *go* down after the Philistines by night, and spoil them until the morning light. 1 *Sam.* xiv. 36.

Thou art not able to *go* against this Philistine to fight with him. *Id.* xvii. 33.

The remnant of Jacob shall be among the Gentiles as a lion among the beasts of the forest; who, if he *go* through, both treadeth down and teareth in pieces, and none can deliver. *Mic.* v. 8.

You were advised his flesh was capable
Of wounds and scars, and that his forward spirit
Would lift where most trade of danger ranged;
Yet did you say *go* forth. *Shakspeare. Henry IV.*

To change state or opinion for better or worse.

We will not hearken to the king's words to *go* from our religion. 1 *Mac.* ii. 22.

The regard of the publick state, in so great a danger, made all those goodly things, which *went* so to wreck, to be lightly accounted of in comparison of their lives and liberty. *Knolles.*

They look upon men and matters with an evil eye; and are best pleased when things *go* backward, which is the worst property of a servant of a prince or state. *Bacon.*

All *goes* to ruin, they themselves contrive
To rob the honey, and subvert the hive. *Dryden.*

Landed men, by their providence and good husbandry, accommodating their expences to their income, keep themselves from *going* backwards in the world. *Locke.*

Cato, we will all *go* into your opinion. *Addison.*

To apply one's self.

Seeing himself confronted by so many, like a resolute orator, he *went* not to denial, but to justify his cruel falsehood. *Sidney.*

Because this atheist *goes* mechanically to work, he will not offer to affirm that all the parts of the embryon could, according to his explication, be formed at a time. *Bentley.*

To have recourse to.

Dare any of you, having a matter against another, *go* to law before the unjust, and not before the saints? 1 *Cor.*

To be about to do.

So extraordinary an example, in so degenerating an age, deserves for the rarity, and, I was *going* to say, for the incredibility of it, the attestation of all that knew him, and considered his worth. *Locke.*

To shift; to pass life not quite well.

Every goldsmith, eager to engross to himself as much as he could, was content to pay high for it, rather than *go* without. *Locke.*

Cloaths they must have; but if they speak for this stuff, or that color, they should be sure to *go* without it. *Id.*

To decline; to tend towards death or ruin. This sense is only in the participles *going* and *gone*.

The fourthe partie of this day is *gon*. *Chaucer. The Man of Lawes Tale.*

He is far *gone*, and, truly, in my youth,
I suffered much extremity for love,
Very near this. *Shakspeare. Hamlet.*

Ancient of days! august Athena! where,
Where are thy men of might? thy grand in soul?
Gone, glimmering through the dream of things that were,
First in the race, that led to glory's goal;
They won and passed away. *Byron. Childe Harold.*

To be in party or design

They with the vanquished prince and party *go*,
And leave their temples empty to the foe. *Dryden.*

To escape.

Timotheus himself fell into the hands of Dositheus and Sosipater, whom he besought with much craft to let him *go* with his life. 2 *Mac.* xii. 24.

To tend to any act.

There be some women, Silvius, had they marked him
In parcels as I did, would have *gone* near
To fall in love with him. *Shakspeare. As you like it.*

To be uttered.

His disciples personally appeared among them and ascertained the report which had *gone* abroad concerning a life so full of miracles. *Addison.*

To be talked of; to be known.

It has the greatest town in the island that *goes* under the name of Ano-Caprea, and is in several places covered with a very fruitful soil. *Addison.*

To pass; to be received.

Because a fellow of my acquaintance set forth her praises in verse, I will only repeat them, and spare my own tongue, since she *goes* for a woman. *Sidney.*

And the man *went* among men for an old man in the days of Saul. 1 *Sam.* xvii. 12.

A kind imagination makes a bold man have vigour and enterprise in his air and motion: it stamps value upon his face, and tells the people he is to *go* for so much. *Collier.*

Clipping should be finally stopped, and the money which remains should *go* according to its true value. *Locke.*

To move by mechanism.

This pope is decrepid, and the bell *goeth* for him. *Bacon.*

Clocks will *go* as they are set; but man,
Irregular man's never constant, never certain. *Otway.*

'Tis with our judgments as our watches, none
Go just alike, yet each believes his own. *Pope.*

To be in motion from whatever cause.

The wayward sisters, hand in hand,
Posters of the sea, and land,
Thus do *go* about, about. *Shakspeare. Macbeth.*

Clipt and washed money *goes* about, when the entire and weighty lies hoarded up. *Waller.*

To move in any direction.

Shall the shadow *go* forward ten degrees, or *go* back ten degrees? 2 *Kings* xx. 9.

Doctor, he is a curer of souls, and you a curer of bodies: if you should fight, you *go* against the hair of your professions. *Shakspeare.*

To flow; to pass; to have a course.

The god I am, whose yellow water flows
Around these fields, and fattens as it *goes*,
Tyber by name. *Dryden's Æneid.*

To have any tendency.

Athenians, know
Against right reason all your counsels *go*,
This is not fair, nor profitable that,
Nor t'other question proper for debate. *Dryden.*

To be in a state of compact or partnership.

As a lion was bestriding an ox that he had newly plucked down, a robber passing by cried out to him, half shares; you should *go* your snip, says the lion, if you were not so forward to be your own carver. *L'Estrange.*

There was a hunting match agreed upon betwixt a a lion, an ass, and a fox, and they were to *go* equal shares in the booty. *Id.*

To be regulated by any method; to proceed upon principles.

Where the multitude beareth sway, laws that shall tend to the preservation of that state must make common smaller offices to *go* by lot, for fear of strife and divisions likely to arise. *Hooker.*

The principles I there *went* on, I see no reason to alter. *Locke.*

We are to *go* by another measure. *Sprat.*

The reasons that they *went* upon were very specious and probable. *Bentley.*

To be pregnant.

Great bellied women,
That had not half a week to *go*. *Shakspeare.*

The fruit she *goes* with,
I pray that it good time and life may find. *Id. Henry VIII.*

Of living creatures some are a longer time in the womb, and some shorter: women *go* commonly nine months, the cow and ewe about six months. *Bacon.*

And now with second hopes she *goes*,
And calls Lucina to her throes. *Milton.*

Some do *go* with their young the sixth part of a year, or two over or under, that is, about six or nine weeks: and the whelps of these see not till twelve days. *Browne.*

To pass; not to remain.

She began to afflict him, and his strength *went* from him. *Judges* xvi. 19.

When our merchants have brought them, if our commodities will not be enough, our money must *go* to pay for them. *Locke.*

To pass, or be loosed, not to be retained.

Then he lets me *go*,
And, with head over his shoulder turned,
He seemed to find his way without his eyes. *Shakspeare.*

Let *go* the hand of that arch heretick. *Id.*

To be expended.

Scholars are close and frugal of their words, and not willing to let any *go* for ornament if they will not serve for use. *Felton.*

To be in order of time or place.

We must enquire farther what is the connexion of that sentence with those that *go* before it, and those which follow it. *Watts.*

To reach or be extended to any degree.

Can another man perceive that I am conscious of any thing, when I perceive it not myself? No man's knowledge here can *go* beyond his experience. *Locke.*

To extend to consequences.

It is not one master that either directs or takes notice of these: it *goes* a great way barely to permit them. *L'Estrange.*

To reach by effects.

Considering the cheapness, so much money might *go* farther than a sum ten times greater could do now. *Wilkins.*

To extend in meaning.

His amorous expressions *go* no further than virtue may allow. *Dryden's Ovid, Preface.*

To spread; to be dispersed; to reach.

Whose flesh, torn off by lumps, the ravenous foe
In morsels cut, to make it farther *go*. *Tate.*

To have influence; to be of weight; to be of value.

I had another reason to decline it, that ever uses to *go* far with me upon all new inventions or experiments: which is, that the best trial of them is by time, and observing whether they live or not. *Temple.*

'Tis a rule that *goes* a great way in the government of a sober man's life, not to put any thing to hazard that may be secured by industry, consideration, or circumspection. *L'Estrange.*

Whatever appears against their prevailing vice *goes* for nothing, being either not applied, or passing for libel and slander. *Swift.*

To be rated one with another; to be considered with regard to greater or less work.

I think, as the world *goes*, he was a good sort of man enough. *Arbuthnot.*

To contribute; to conduce; to concur; to be an ingredient.

The medicines which *go* to the ointments are so strong, that, if they were used inwards, they would kill those that use them. *Bacon.*

More parts of the greater wheels *go* to the making one part of their lines. *Glanville's Scepsis.*

I give the sex their revenge, by laying together the many vicious characters that prevail in the male world, and shewing the different ingredients that *go* to the making up of such different humours and constitutions. *Addison.*

There *goes* a great many qualifications to the completing this relation: there is no small share of honour and conscience and sufficiency required. *Collier of Friendship.*

Something better and greater than high birth and quality must *go* toward acquiring those demonstrations of publick esteem and love. *Swift to Pope.*

To fall out, or terminate; to succeed.

I will send to thy father, and they shall declare unto him how things *go* with thee. *Tob.* x. 8.

Your strong possession much more than your right,
Or else it must *go* wrong with you and me.
Shakspeare.

Howe'er the business *goes*, you have made fault
I' the boldness of your speech. *Id.*

In many armies, if the matter should be tried by duel between two champions, the victory shall *go* on the one side; and yet, if it be tried by the gross, it would *go* on the other side. *Bacon.*

It has been the constant observation of all, that if a minister had a cause depending in the court, it was ten to one but it *went* against him. *South.*

At the time of the prince's landing, the father, easily foreseeing how things would *go*, went over, like many others, to the prince. *Swift.*

Whether the cause *goes* for me or against me, you must pay me the reward. *Watts's Logick.*

To be in any state. This sense is impersonal.

He called his name Beriah, because it *went* evil with his house. 1 *Chron.* vii. 23.

It shall *go* ill with him that is left in his tabernacle. *Job* xx.

To proceed in train or consequence.

How *goes* the night, boy?
—The moon is down: I have not heard the clock;
And she *goes* down at twelve. *Shakspeare.*

I had hope,
When violence was ceased, and war on earth,
All would have then *gone* well. *Milton.*

Duration in itself is to be considered as *going* on in one constant, equal, uniform course. *Locke.*

To go about. To attempt; to endeavour; to set one's self to any business.

O dear father,
It is thy business that I *go about*. *Shakspeare.*

Which answer exceedingly united the vulgar minds to them, who concurred only with them as they saw them like to prevail in what they *went about*. *Clarendon.*

I lost him; but so found, as well I saw
He could not lose himself, but *went about*
His father's business. *Milton.*

Some men, from a false persuasion that they cannot reform their lives, and root out their old vicious habits, never so much as attempt, endeavour, or *go about* it. *South.*

Either my book is plainly enough written to be rightly understood by those who peruse it with attention and indifferency, or else I have writ mine so obscurely that it is in vain to *go about* to mend it. *Locke.*

They never *go about*, as in former times, to hide or palliate their vices; but expose them freely to view. *Swift.*

To go aside. To err; to deviate from the right.

If any man's wife *go aside*, and commit a trespass against him. *Numb.* v. 12.

To go between. To interpose; to moderate between two.

I did *go between* them, as I said; but more than that he loved her; for, indeed, he was mad for her. *Shakspeare.*

To go by. To pass away unnoticed.

Do not you come my tardiness to chide,
That lapsed in time and passion, lets *go by*
The important acting of your dread command? *Id. Hamlet.*

So much the more our carver's excellent,
Which lets *go by* some sixteen years, and makes her
As she lived now. *Id. Winter's Tale.*

What's that to us? The time *goes by*; away. *Shakspeare.*

To go by. To find or get in the conclusion.

In argument with men a woman ever
Goes by the worse, whatever be her cause. *L'Estrange.*

He's sure to *go by* the worst that contends with an adversary that is too mighty for him. *L'Estrange.*

To go by. To observe as a rule.

'Tis not to be supposed, that by searching one can positively judge of the size and form of a stone; and indeed the frequency of the fits, and violence of the symptoms, are a better rule to *go by*. *Sharp's Surgery.*

To go down. To be swallowed; to be received; not rejected.

Folly will not easily *go down* in its own natural form with discerning judges. *Dryden.*

Nothing so ridiculous, nothing so impossible, but it *goes down* whole with him for truth and earnest. *L'Estrange.*

If he be hungry, bread will *go down*. *Locke.*

Ministers are so wise to leave their proceedings to be accounted for by reasoners at a distance, who often mould them into the systems that do not only *go down* very well in the coffee house, but are supplies for pamphlets in the present age. *Swift.*

To go in and out. To do the business of life.

The lord shall preserve thy *going out* and thy coming in. *Psalms.*

To go in and out. To be at liberty.

He shall *go in and out*, and find pasture. *John.*

To go off. To die; to go out of life; to decease.

I would the friends we miss were safe arrived:
Some must *go off*; and yet, by these I see
So great a day as this is cheaply bought. *Shakspeare.*

In this manner he *went off*, not like a man that departed out of life, but one that returned to his abode. *Tatler.*

To go off. To depart from a post.

The leaders having charge from you to stand,
Will not *go off* until they hear you speak. *Shakspeare. Henry IV.*

To go on. To make attack.

Bold Cethegus,
Whose valour I have turned into his poison,
And praised so to daring, as he would
Go on upon the gods. *Ben Jonson.*

To go on. To proceed.

He found it a great war to keep that peace, but was fain to *go on* in his story. *Sidney.*

I have escaped many threats of ill fits by these motions; if they *go on*, the only poltice I have dealt with is wool from the belly of a fat sheep. *Temple.*

He that desires only that the work of God and religion shall *go on*, is pleased with it, whoever is the instrument. *Taylor.*

To look upon the soul as *going on* from strength to strength, to consider that she is to shine for ever with new accessions of glory, and brighten to all eternity, is agreeable. *Addison.*

Go on cheerfully in the glorious cause you have undertaken. *Id.*

Copious bleeding is the most effectual remedy in the beginning of the disease: but, when the expectoration *goes on* successfully, not so proper, because it sometimes suppresseth it. *Arbuthnot on Diet.*

I have already handled some abuses during the late management, and in convenient time shall *go on* with the rest. *Swift.*

When we had found that design impracticable, we should not have *gone on* in so expensive a management of it. *Id.*

Many clergymen write in so diminutive a manner, with such frequent blots and interlineations, that they are hardly able to *go on* without perpetual hesitations, or extraordinary expletives. *Id.*

I wish you health to *go on* with that noble work. *Berkley.*

To go over. To revolt; to betake himself to another party.

In the change of religion, men of ordinary understandings don't so much consider the principles as the practice of those to whom they *go over*. *Addison.*

Power, which, according to the old maxim, was used to follow, is now *gone over* to money. *Swift.*

To go out. To go upon any expedition.

You need not have pricked me: there are other men fitter to *go out* than I. *Shakspeare. Henry IV.*

To go out. To be extinguished.

Thinkest thou the fiery fever will *go out*,
With titles blown from adulation. *Id. Henry V.*

Spirit of wine burned till it *go out* of itself, will burn no more. *Bacon's Natural History.*

The care of a state, or an army, ought to be as constant as the chymist's fire, to make any great production; and if it *goes out* for an hour, perhaps the whole operation fails. *Temple.*

The morning, as mistaken, turns about;
And all her early fires again *go out*.
Dryden's Aureng.

Let the acquaintance be decently buried, and the flame rather *go out* than be smothered. *Collier.*

My blood runs cold, my heart forgets to heave,
And life itself *goes out* at thy displeasure.
Addison's Cato.

And at her felt approach and secret might,
Art after art *goes out*, and all is night.
Pope's Dunciad.

To go through. To perform thoroughly; to execute

If you can as well *go through* with the statute laws of that land, I will think you have not lost all your time there. *Spenser.*

Kings ought not to suffer their counsel to *go through* with resolution and direction, as if it depended on them, but take the matter back into their own hands. *Bacon.*

He much feared the earl of Antrim had not steadiness of mind enough to *go through* with such an undertaking *Clarendon.*

Finding Pyrocles every way able to *go through* with that kind of life, he was as desirous for his sake as for his own to enter into it. *Sidney.*

The amazing difficulty and greatness of his account will rather terrify than inform him, and keep him from setting heartily about such a task, as he despairs ever to *go through* with it. *South's Sermons.*

The powers in Germany are borrowing money, in order to *go through* their part of the expence. *Addison on the War.*

To go through. To suffer; to undergo.

I tell thee that it is absolutely necessary for the common good that thou shouldest *go through* this operation. *Arbuthnot.*

To go upon. To take as a principle.

This supposition I have *gone upon* through those papers. *Addison.*

The senses of this word are very indistinct: its general notion is motion or progression. It commonly expresses passage from a place, in opposition to *come*. This is often observable even in figurative expressions. We say, the words that *go* before and that *come* after: to day *goes* away and to-morrow *comes*.

Go to, *interj.* Come, come, take the right course. A scornful exhortation.

Go to, then, O thou far renowned son
Of great Apollo, shew thy famous might
In medicine. *Spenser.*

Go to, go to, thou art a foolish fellow;
Let me be clear of thee.
Shakspeare. Twelfth Night.

My favour is not bought with words like these:
Go to; you'll teach your tongue another tale.
Rowe.

GOA, a city of India, in the province of Bejapoor, the capital of the Portuguese possessions. It at the present time consists of two distinct towns; the Old City about eight miles up the river, now almost deserted from its unhealthy air; and the New Town on the mouth of the river. The former, however, contains the inquisition (as well as many magnificent churches), and the clergy connected with it reside there: exhibiting on the whole specimens of European architecture superior to any other part of India, particularly the cathedral, and the church and convent of the Augustines.

At New Goa, which is protected by the forts of the harbour, the viceroy resides. It formerly carried on a considerable trade in arrack, but this has been of late transferred to BATAVIA, which see. There is still a small trade carried on in betel nuts, cowries, and toys with Africa; and Goa imports piece goods, sugar, ivory, raw silk, glass and woollens: but its expenses are said far to exceed its revenue. In 1808 there were 200 churches and chapels in the district, and above 2000 priests. The whole Portuguese territory in the neighbourhood of Goa, including the islands, is about forty miles in length by twenty in breadth.

Goa was taken by the Bhamenee sovereigns of the Deccan from the Hindoo rajahs of Bijanagur, in the middle of the fifteenth century; in 1510 it was besieged and taken by the Portuguese general Albuquerque, when he made it the capital of the Portuguese possessions in the east, adding to its fortifications. The inhabitants now amount to about 20,000, of whom few are

genuine Portuguese. It is now altogether a very neglected and inferior place. Travelling distance from Poonah 245 miles, from Bombay 292.

GOAD, *n. s.* & *v. a.* Sax. ȝaᵹ; Goth. *gad*; Wel. *got*. A pointed instrument, with which oxen are driven forward. To incite; stimulate, or urge on.

Most dangerous
Is that temptation, that doth *goad* us on
To sin in loving virtue.
Shakspeare. Measure for Measure.

Goaded with most sharp occasions,
Which lay nice manners by, I put you to
The use of your own virtues. *Shakspeare.*

Of all that breathes the various progeny,
Stung with delight, is *goaded* on by thee. *Dryden.*
Oft in his hardened hand a *goad* he bears. *Pope.*

Goaded by ambition's sting,
The hero sunk into the king!
Then he fell—so perish all
Who would men by man enthral. *Byron.*

GOAL, *n. s.* Fr. *gaule*. A landmark; starting-post; hence, figuratively, the end to which any design tends.

Let a post-angel start with thee
And thou the *goal* of earth shall reach as soon as he.
Cowley.

And the slope sun his upward beam
Shoots against the dusky pole,
Pacing toward the other *goal*. *Milton.*

Hast thou beheld, when from the *goal* they start,
The youthful charioteers with heaving heart
Rush to the race? *Dryden's Virgil.*

So man, who here seems principal alone,
Perhaps acts second to some sphere unknown;
Touches some wheel, or verges to some *goal*;
'Tis but a part we see, and not a whole. *Pope.*

Onward he flies, nor fixed as yet the *goal*
Where he shall rest him on his pilgrimage.
Byron. Childe Harold.

GOALPARAH, a town in the district of Rangamutty, Bengal, situated near the frontiers of Assam, on the south bank of the Brahmapootra. The Assamese bring gold, ivory, lac, wax, and tar hither, for which they receive, salt, silks, and fine muslins. No European is allowed to proceed beyond this place without a pass. There is a custom-house on the opposite side of the river, at a place called Kangrar. It is 170 miles north by east from Decca.

GOAND, an independent mountainous district of Hindostan, in the province of Gundwana, intersected by the Mahanuddy River. It is in fact tributary to Nagpore, but the inhabitants are very uncivilised, and the country not worth entire conquest.

GOAR, *n. s.* Welsh, *gorer*. Any edging sewed upon cloth to strengthen it, or to widen it.

A seint she wered, barred all of silk;
A barme-cloth, eke, as white as morwe milk
Upon her lendes ful of many a *gore*.
Chaucer. The Milleres Tale.

GOAT, *n. s.* / GOATHERD, / GOATISH, *adj.* / GOAT'S-SKIN, *n. s.* / GOAT'S-MILK, / GOATS'-RUE, / GOATS'-THORN. Sax. and Scot. ȝat. A ruminant animal, that seems a middle species between deer and sheep. The adjective is used figuratively for rankness or lust. Goatherd, Sax. ȝat and hyꞑᵹ, one who herds goats: goats'-rue and goats'-thorn are herbs: the other compounds are plain.

A vois he hadde as smale as hath a *gote*.
Chaucer. Prologue to the Canterbury Tales.

Up to the rocke he ran, and thereon flew
Like a wyld *gote*, leaping from hill to hill,
And dauncing on the craggy cliffes at will.
Spenser. Faerie Queene.

Is not thilk same *goatherd* proud,
That sits on yonder bank,
Whose straying herd themselves doth shroud
Among the bushes rank? *Spenser's Pastorals.*

An admirable evasion of a whoremaster, man, to lay his *goatish* disposition on the change of a star.
Shakspeare. King Lear.

Gall of *goat*, and slips of yew. *Id. Macbeth.*

The first gave the *goatherd* good contentment, and the marquis and his servant chased the kid about the stack. *Wotton.*

We Cyclops care not for your *goat*-fed Jove,
Nor other blest ones; we are better farre.
Chapman.

You may draw naked boys riding and playing with their paper-mills upon *goats*, eagles, or dolphins.
Peacham.

The little bear that rocked the mighty Jove,
The swan whose borrowed shape concealed his love,
Are graced with light; the nursing *goat's* repaid
With heaven and duty raised the pious maid.
Creech.

The last is notorious for its *goatish* smell, and tufts not unlike the beard of that lecherous animal.
More against Atheism.

After the fever and such like accidents are diminished, asses and *goat's milk* may be necessary.
Wiseman's Surgery.

Then filled two *goatskins* with her hands divine;
With water one, and one with sable wine. *Pope.*

Goat's rue has the reputation of being a great alexipharmick and sudorific: the Italians eat it raw and boiled; with us it is of no esteem. *Hill.*

GOAT. See CAPRA.

GOAT ISLAND, a flat island of the Eastern Seas, the southernmost of the Bashees. It was so called from the number of goats found on it. Long. 121° 0′ E., lat. 20° 6′ N. Also, a small island among the Philippines, in long. 120° 13′ E., lat. 13° 52′ N.

GOAT ISLAND, GREAT, a small island on the south coast of Jamaica, in long. 76° 51′ E., lat. 17° 53′ N.

GOAT ISLAND, LITTLE, an island about a mile north-west from Great Goat Island.

GOATS'-BEARD, in botany. See TRAGOPOGON.

GOAVE, PETIT, a sea-port town of Hispaniola, with a capacious and safe harbour: the environs contain sugar, coffee, indigo, and cotton plantations. Hither the inhabitants of Grand Goave and the neighbourhood send their commodities. It is twenty miles W. S. W. of Leogane.

GOB, *n. s.* / GOBBET, *n. s.* & *v. a.* / GOB'BLE, *v. a.* / GOB'BLER, *n. s.* Fr. *gobé*, *gober*. A small quantity; a mouthful: one that swallows in haste; a gourmand: to eat greedily.

He said he hadde a *gobbet* of the seyl
Thatte Peter had whan that he went
Upon the see till Jesus Crist him hente.
Chaucer. Prologue to Canterbury Tales.

The cooks, slicing it into little *gobbets*, prick it on a prong of iron, and hang it in a furnace.
Sandy's Travels.

Therewith she spewed, out of her filthy maw,
A flood of poison, horrible and black,
Full of great lumps of flesh and *gobbets* raw.
Spenser.

By devilish policy art thou grown great,
And, like ambitious Sylla, overgorged
With *gobbets* of thy mother's bleeding heart.
Shakspeare.

Do'st think I have so little wit as to part with such a *gob* of money. *L'Estrange.*

The sheep were so keen upon the acorns, that they *gobbled* up now and then a piece of the coat along with them. *Id.*

Down comes a kite powdering upon them, and *gobbets* up both together. *Id.*

The giant gorged with flesh, and wine, and blood,
Lay stretched at length, and snoring in his den,
Belching raw *gobbets* from his maw, o'ercharged
With purple wine and cruddled gore confused.
Addison.

Of last year's corn in barn great store;
Fat turkeys *gobbling* at the door. *Prior.*

The time too precious now to waste,
And supper *gobbled* up in haste,
Again afresh to cards they run. *Swift.*

GOBBI, a district of Western Africa, to the south of Cape Lopez Gonsalvo, extending along the coast to Camma. The chief trade is in elephants' teeth.

GOBBO Cortonese (Peter Paul), a celebrated painter of fruit and landscapes, born at Cortona in 1580. He learned the principles of design from his father; was afterwards the disciple of Crescentio at Rome, and perfected himself in his profession by copying after nature, with judgment and accuracy. By his skill in the chiaro-scuro he gave an exact and expressive roundness to his fruits, &c.; but he chiefly excelled in coloring. He died in 1640.

GO-BETWEEN, *n. s.* Go and between. One that transacts business by running between two parties. Commonly in an ill sense.

Even as you came in to me her assistant, or *go-between*, parted from me: I say I shall be with her between ten and eleven. *Shakspeare.*

GOBIN, a town of France, in the department of the Aisne, in the midst of a forest. Inhabitants 1750. Here is one of the most celebrated manufactures of mirrors in Europe. Some of the plates cast are eleven feet in length, and from three to four in breadth. Eleven miles west of Laon, and twenty-five east of Chauny.

GOBIUS, in ichthyology, a genus of fishes belonging to the order thoracici. They have two holes between the eyes, seven rays in the membrane of the gills, and the belly fins are united in an oval form. There are twenty-five species, principally distinguished by the number of rays in their fins. See Ichthyology.

GO'BLET, *n. s.* Fr. *gobelet*. A bowl; or cup, that holds a large draught.

My figured *goblets* for a dish of wood. *Shakspeare.*

We love not loaded boards, and *goblets* crowned;
But free from surfeits our repose is found. *Denham.*

Crown high the *goblets* with a cheerful draught;
Enjoy the present hour, adjourn the future thought.
Dryden.

If not, the *goblet* pass unquaffed;
It is not drained to banish care:
The cup must hold a deadlier draught
That brings a Lethe for despair. *Byron.*

GO'BLIN, *n. s.* Fr. *gobeline*; which Spenser has once retained; writing it in three syllables. 'This word some derive from the Gibellines, a faction in Italy; so that elfe and goblin is Guelph and Gibelline, because the children of either party were terrified by their nurses with the name of the other: but it appears that elfe is Welsh, and much older than those factions. Eiliff Uishon are phantoms of the night, and the Germans likewise have long had spirits among them named Goboldi, from which gobeline might be derived.'—Dr. Johnson. An evil spirit; a walking spirit; a frightful phantom. A fairy; an elf.

His son was Elfinel, who overcame
The wicked *gobbelines* in bloody field;
But Elfant was of most renowned fame,
Who of all crystal did Panthea build. *Spenser.*

Go, charge my *goblins* that they grind their joints
With dry convulsions; shorten up their sinews
With aged cramps. *Shakspeare. Tempest*

Angels and ministers of grace defend us!
Be thou a spirit of health, or *goblin* damned,
Bring with thee airs from heaven, or blasts from hell?
Shakspeare.

To whom the *goblin*, full of wrath, replied,
Art thou that traytor angel? *Milton's Paradise Lost.*

Always, whilst he is young, be sure to preserve his ender mind from all impressions and notions of spirits and *goblins*, or any fearful apprehensions in the dark.
Locke.

Mean time the village rouses up the fire
While well attested, and as well believed,
Heard solemn goes the *goblin* story round.
Thomson.

And *goblins* all
To the damp dungeon shrink, or hoary hall,
Or westward with impetuous flight
Shoot to the desert realms of their congenial night.
Beattie.

GO-BY, *n. s.* Delusion; artifice; circumvention; over-reach.

Except an apprentice is instructed how to adulterate and varnish, and give you the *go by* upon occasion, his master may be charged with neglect.
Collier on Pride.

GO-CART, *n. s.* Go and cart. A machine in which children are enclosed to teach them to walk, and which they push forward without danger of falling.

Young children, who are tryed in
Go-carts, to keep their steps from sliding,
When members knit, and legs grow stronger,
Make use of such machine no longer. *Prior.*

GOCAUK, a large town of Hindostan, in the province of Bejapoor, situated on the acclivity of a hill, and defended on three sides by a brick wall and wet ditch. On the other, the south side, it has the Gutpurba River. The manufacture of cotton and silk goods here is extensive. About two miles from this town is a very fine cataract 174 feet high; the breadth of it in the rainy season is 160 yards. This was the chief town of a district when taken by Muazim, the son of Aurungzebe, in 1685; but it has now no buildings of importance.

GOD, *n. s.* & *v. a.* }
GOD'LESS, *n. s.* }
GOD'LIKE, *adj.* }
GOD'LINESS, *n. s.* }
GOD'LY, *adj.* & *adv.* }
GODLING, *n. s.* }
GODHEAD, *n. s.* }
GODWARD, *adj.* }
GODLYHEAD, *n. s.* }
Sax. ȝoȣ, which likewise signifies good. The same word passes in both senses with only accidental variations through all the Teutonic dialects. The Supreme Being. An idol; a false god; a little divinity: a human being canonised; religious or irreligious persons and acts: goodness and piety: some of these words are obsolete. Figuratively undue attention paid to any subordinate things or beings.

He that sacrificeth unto any *god*, save unto the Lord only, he shall be utterly destroyed. *Exodus* xxii.

Help, Lord, for the *godly* man ceaseth, for the faithful fail among the children of men. *Psalm* xii. 1.

And such trust have we through Christ to *Godward*. 2 *Cor.*

Whose end is destruction, whose *god* is their belly. *Phil.* iii.

Grant that we may hereafter live a *godly*, righteous, and sober life. *Common Prayer.*

In the morwe tide, is most convenable to a man to say his prayers, and for to think on *God*, and to honour *God*, and to geve almesse to the poure. *Chaucer. The Persones Tale.*

For this, and many more such outrage,
I crave your *godlyhead* to asswage
The rancorous vigour of his might. *Spenser.*

Virtue and *godliness* of life are required at the hands of the minister of God. *Hooker.*

The apostle St. Paul teacheth, that every one that will live *godly* in Christ Jesus must suffer persecution. *Id.*

Of these two sorts of men, both *godless*, the one has utterly no knowledge of God, and the other studies how to persuade themselves that there is no such thing to be known. *Id.*

I am not Licio,
But one that scorns to live in this disguise,
For such a one as leaves a gentleman,
And makes a *god* of such a cullion. *Shakspeare.*

Be content
Your low-laid son our *godhead* will uplift. *Id.*

Were your *godheads* to borrow of men, men would forsake the *gods*. *Id. Timon.*

As flies to wanton boys are we to the *gods*,
They kill us for their sport. *Id. King Lear.*

This last old man
Loved me above the measure of a father;
Nay, *godded* me, indeed. *Id. Coriolanus.*

These marriages did not beget men, so much as wickedness; from hence religious husbands both lost their piety, and gained a rebellious and *godless* generation. *Bishop Hall.*

For nought more *god-like* in this world is found,
Then so resolved a man, that nothing may
His resolution alter or confound,
When any taske of worth, he doth assay. *George Withers.*

That *godless* crew
Rebellious. *Milton.*

Thus Adam his illustrious guest besought,
And thus the *godlike* angel answered mild. *Id.*

At the holy mount
Of heaven's high-seated top, the imperial throne
Of *godhead*, fixed for ever firm and sure,
The filial power arrived. *Id. Paradise Lost.*

The same church is really holy in this world, in relation to all *godly* persons contained in it, by a real infused sanctity. *Pearson.*

All the churches of *God* are united into one by the unity of discipline and government, by virtue whereof the same Christ ruleth in them all. *Id.*

Strong *god* of arms, whose iron sceptre sways
The freezing North, and Hyperborean seas,
And Scythian colds, and Thracia's Winter Coast,
Where stand thy steeds, and thou art honoured most. *Dryden.*

Thy puny *godlings* of inferior race,
Whose humble statues are content with brass. *Id.*

For faults not his, for guilt and crimes
Of *godless* men, and of rebellious times,
Him his ungrateful country sent,
Their best Camillus, into banishment. *Id.*

Adoring first the genius of the place,
The nymphs and native *godheads* yet unknown. *Id. Æneid.*

That prince shall be so wise and *godlike*, as, by established laws of liberty, to secure protection and encouragement to the honest industry of mankind. *Locke.*

The Supreme Being, whom we call *God*, is necessary, self-existent, eternal, immense, omnipotent, omniscient, and best being; and therefore also a being who is and ought to be esteemed most sacred or holy. *Grew's Cosmologia.*

So may thy *godhead* be confest,
So the returning year be blest. *Prior.*

Ere wit oblique had broke that steady light,
Man like his maker, saw that all was night;
To virtue in the paths of pleasure trod,
And owned a father when he owned a *God*. *Pope.*

There fixed the dreadful, here the blest abodes;
Fear made her devils, and weak hope her *gods*. *Id.*

Blest be the day I 'scaped the wrangling crew,
From Pyrrho's maze, and Epicurus' sty,
And held high converse with the *god-like* few;
Who to the enraptured heart, and ear, and eye,
Teach beauty, virtue, truth, and love, and melody. *Beattie.*

GOD. See THEOLOGY.

GOD'S HOUSE, LEAGUE OF, one of the three chief divisions of the Swiss Canton of the Grisons. It has eleven jurisdictions, a territorial extent of 1280 square miles, and a population of about 28,000. See GRISONS.

GODALMING, a town on the Wye, at a place where it divides into several streams. It is a corporation; and by its charter the chief magistrate is a warden chosen yearly, with eight assistants. It carries on manufactures of kerseys and stockings; and is famous for liquorice. It has a market on Wednesday. Its name is supposed to have been derived from Goda, a pious lady among the Saxons, who founded a religious house here. The town consists of one principal street, running east and west, and several smaller ones. The church is a neat building, with a high and handsome spire; besides which here are a Quakers' meeting-house, two chapels for other dissenters, a good charity school, and, on the common, an hospital endowed for ten old men. It is four miles south-west from Guildford, and thirty-three from London.

GODAVERY, GANGA GODAVERY, a fine river of India, rising on the eastern side of the Bala

Ghaut, about seventy miles to the north-east of Bombay. It traverses nearly the whole of the breadth of the peninsula in a circuitous south-east direction, and is computed to be 800 miles in length. During the rainy season it is often more than a mile and a half in breadth. On reaching Rajamundry, in the Northern Circars, it divides into two main branches, one of which falls into the bay of Bengal, a few miles south of the town of Coringa, and the other a little below Narsipore, forming between them the fertile island of Nagur. There are several forests of saul and teak timber near the banks of this river, only a small portion of which passes through the British territories. This river, from its source, is held sacred by the Hindoo inhabitants of the peninsula. Its Delta contains three small harbours, viz. Yanam, Bunder Malanca, and Narsipore. The harbours of Ingeram and Coringa are also connected with this river; but none of its branches are navigable for ships of burden.

Godavery Point, a head-land on the south side of the entrance of the northern branch of the above river; it is also called Point Gordeware. Long. 82° 32′ E., lat. 16° 43′ N.

GO'D-CHILD, *n. s.* God and child. A term of spiritual relation; one whose sponsor at baptism promised to see him or her educated as a Christian.

GODDARD (Jonathan), M. D., an eminent physician and chemist, and one of the first promoters of the Royal Society. He was born about 1617; educated and graduated at Oxford; was elected a fellow of the College of Physicians in 1646, and appointed reader of the anatomical lecture in 1647. Oliver Cromwell appointed him first physician to the army, a member of the council of state, and warden of Merton College; but he lost this office on the Restoration. He was elected professor of physic in Gresham College, in 1655. He prepared all his own medicines; and, in 1668, published a treatise, recommending that practice to all physicians. He was the inventor of the Guttæ Anglicanæ. He died of an apoplectic fit in 1674. Bishop Seth Ward says, he was the first Englishman who constructed a telescope.

GO'D-DAUGHTER, *n. s.* God and daughter. A girl who has had a sponsor in baptism. A term of spiritual relation.

GO'DDESS, *n. s.* From god. A female divinity.

Hear, nature, hear! dear *goddess*, hear a father!
Shakspeare.

A woman I forswore? but I will prove,
Thou being a *goddess*, I forswore not thee:
My vow was earthy, thou a heav'nly love. *Id.*

I long have waited in the temple nigh,
Built to the gracious *goddess* Clemency;
But rev'rence thou the power.
Dryden's Fables.

From his seat the *goddess* born arose,
And thus undaunted spoke. *Id.*

When the daughter of Jupiter presented herself among the crowd of *goddesses*, she was distinguished by her graceful stature and superior beauty.
Addison.

Modesty withheld the *goddess'* train.
Pope's Odyssey.

GO'DDESS-LIKE, *adj.* Goddess and like Resembling a goddess.

Then female voices from the shore I heard;
A maid amidst them *goddess-like* appeared. *Pope.*

GO'D-FATHER, *n. s.* God and father. The sponsor at the font.

He had a son by her, and the king did him the honour as to stand *god-father* to his child. *Bacon.*

Confirmation, a profitable usage of the church, transcribed from the apostles, consists in the child's undertaking in his own name the baptismal vow; and, that he may more solomnly enter this obligation, bringing some *god-father* with him, not now, as in baptism, as his procurator. *Hammond.*

Jack Thomson and Bill Thomson;—all the rest
Had been called 'Jemmy' after the great bard
I don't know whether they had arms or crest,
But such a *god-father's* as good a card. *Byron.*

GODFREY of Bouillon, or Boulogne, prince of Lorrain, was chosen general of the expedition which the Christians undertook for the recovery of the Holy Land, and sold his dukedom to prepare for the war. He took Jerusalem from the Turks in 1099; and was made king of it; but he never would submit to be crowned, alleging that it would be impiety to wear a crown of gold in the city where his Saviour had been crowned with thorns. The sultan of Egypt afterwards sent a terrible army against him; which he defeated, with the slaughter of about 100,000 of the enemy. He died in 1160.

GO'D-MOTHER, *n. s.* God and mother. A woman who has undertaken sponsion in baptism. A term of spiritual relation.

GODOLPHIN (John), an eminent English civilian, born in the island of Sicily in 1617, and educated at Oxford. In 1642-3, he was created LL. D.; in 1653 he was appointed one of the judges of the admiralty; and at the Restoration he was made one of the king's advocates. He was esteemed as great a master of divinity as of law; and published, 1. The Holy Limbeck. 2. The Holy Arbor. 3. A View of the Admiral's Jurisdiction. 4. The Orphan's Legacy. 5. Repertorium Canonicum, &c. He died in 1678.

Godolphin (Sidney), earl of Godolphin, was of the above family, and educated at the same University. He was one of those who voted under Charles II. for the exclusion of the duke of York from the throne, notwithstanding which he was employed by James II., and on the flight of that monarch Godolphin voted for a regency. Under William and Mary he was made a commissioner of the treasury. During the reign of queen Anne he was at the head of this department; and in 1704 became a knight companion of the garter. In 1706 he was created earl of Godolphin: but four years afterwards was obliged to retire from office. His death took place in 1712.

GO'D-SHIP, *n. s.* From god. The rank or character of a god; deity; divinity.

Discoursing largely on this theme,
O'er hills and dales their *god-ships* came.
Prior.

GO'D-SON, *n. s.* God and son. One who has had a sponsor at the font.

What, did my father's *godson* seek your life?
He whom my father named? your Edgar?
Shakspeare.

GODWIN (Mary), also known by her maiden name of Woolstonecraft, was born near London in 1759. After keeping a boarding school, and being a companion to a lady on a journey to Lisbon, she had recourse to her pen, and produced some translations from the French; and an Essay on Female Education. Her principal performance was a Vindication of the Rights of Women, a book whose principal tendency is to unsex the sex. She now fell in love with Mr. Fuseli, the painter, a married man; and, not meeting with a return to her passion, went to France, and formed a connexion with one Imlay, an American, who soon abandoned her. She next became attached to Mr. Godwin, whom she afterwards married, and who wrote her life. She died in 1797.

GO'D-WIT, *n. s.* Sax. ȝoð, good, and ꝼiꝛa, an animal. A bird of peculiar delicacy.

Nor ortelans nor *god-wits* crown his board. *Cowley.*

GODWYN (Thomas), a learned English author, born in 1517, master of the free-school at Abington in Berkshire; where he educated many youths, who became eminent in church and state. He was a man of great learning: he wrote Historiæ Romanæ anthologia, Synopsis antiquitatum Hebraicarum, Moses et Aaron, Florilegium Phrasicon, &c. He died in 1642.

GOELWARAH, a district of the province of Gujerat, Hindostan, situated between 21° and 22° of N. lat. It is bounded on the east by the gulf of Cambay, and is famous for a breed of large cattle. It was ceded by the Mahrattas to the British in 1805, in part payment of a subsidiary force, and is subject to the jurisdiction of Kaira. The chief town is Gogo.

GOD'YELD, *adv.* } Corrupted from god shield
GO'DYIELD, *adv.* } or protect. A term of thanks. Now not used.

Herein I teach you,
How you should bid *godyield* us for your pains,
And thank us for your trouble. *Shakspeare's Macbeth.*

GOEL, *adj.* Sax. ȝoleꝼ; yellow. An old word.

In March at the furthest, dry season or wet,
Hop roots so well chosen let skilful go set;
The *goeler* and younger, the better I love;
Well gutted and pared, the better they prove.
Tusser.

GOEN, a large town of Asiatic Turkey, on the right bank of the Tigris, and 150 miles S. S. E. of Mosul.

GO'ER, *n. s.* From go.
One that goes; a runner.

I would they were in Africk both together,
Myself by with a needle, that I might prick
The *goer* back. *Shakspeare. Cymbeline.*

Such a man
Might be a copy to these younger times;
Which, followed well, would now demonstrate them
But *goers* backward. *Id. All's well.*

Nothing could hurt either of us so much as the intervening officious impertinence of those *goers* between us, who in England pretend to intimacies with you, and in Ireland to intimacies with me.
Pope to Swift.

A walker: one that has a gait or manner of walking good or bad.

The earl was so far from being a good dancer, that he was no graceful *goer.* *Wotton.*

The foot. Obsolete.

A double mantle, cast
A'thwart his shoulder, his faire *goers* graced
With fitted shoes. *Chapman.*

GOES or TER GOES, an old town of the Netherland, in South Beveland, at the east mouth of the Scheldt. It has an ancient and curious monastry; and manufactures of salt, and a good trade in corn and hops. When it was besieged by the insurgents, in the reign of Philip II. of Spain, the Spaniards marched a body of troops seven miles through the water from Bergen-op-Zoom, across a ford which was never before deemed practicable, and has never since, it is said, been attempted. It is ten miles east of Flushing. Population 3700.

GOG AND MAGOG, two names generally joined together in Scripture (Ezek. xxxviii. 2, 3, &c; xxxix. 1, 2, &c.; Rev. xx. 8). Moses speaks of Magog the son of Japhet, but says nothing of Gog (Gen. x. 2.; Chron. i 5). Gog was prince of Magog, according to Ezekiel; Magog being the name of the country or people. The generality of the ancients made Magog the father of the Scythians and Tartars; and several interpreters discovered many traces of their name in the provinces of Great Tartary. Others supposed that the Persians were the descendants of Magog. Some have imagined that the Goths were descended from Gog and Magog; and that the wars described by Ezekiel, and undertaken by Gog against the saints, are those which the Goths carried on against the Roman empire, in the fifth century. Bochart has placed Gog in the neighbourhood of Caucasus. He derives the name of this celebrated mountain from the Hebrew Gogchasan, 'the fortress of Gog.' He maintains that Prometheus, said to be chained to Caucasus by Jupiter, is Gog, and no other.

GOGGLE, *v. n.* } Saxon ꝼceȝl eȝen;
GOGGLE-EYED, *adj.* } squint-eyed; not looking straight.

They are deformed, unnatural, or lame; and very unseemly to look upon, except to men that be *goggle-eyed* themselves. *Ascham.*

Inflamed all over with disgrace,
To be seen by her in such a place,
Which made him hang his head, and scoul,
And wink and *goggle* like an owl. *Hudibras*

Nor sighs, nor groans, nor *goggling* eyes did want.
Dryden.

GOGGLES, in surgery, instruments used for curing squinting, or that distortion of the eyes which occasions this disorder. They are short conical tubes, composed of ivory stained black with a thin plate of the same ivory fixed in the tubes near their anterior extremities. Through the centre of each of these plates is a small circular hole, about the size of the pupil of the eye, for the transmission of the rays of light. These goggles must be continually worn in the daytime, till the muscles of the eye are brought to act regularly and uniformly, so as to direct the pupil straight forwards; and by these means the cure will probably be sooner or later effected.

GOGGRAH, a river, called also the Sarfew and Deva in different parts of its course, supposed by Major Rennell to be the Agoramis of Arrian. It has its source in the mountains of

Thibet, and flows through the provinces of Kemaon, Oude, and part of Bahar, till at Maniee it joins the Ganges. It is navigable for boats to the foot of the hills, and is held sacred by the Hindoos. On its banks are several large towns.

GOGO, a sea-port of Hindostan, in the province of Gujerat, and the capital of the district of Goelwarah. Here is a safe roadstead and good refreshing place during the south-west monsoon. Vessels from fifty to 300 tons burden are built; and a considerable trade is carried on with Bombay. The sailors are very able and adroit. It is an ancient town, which came into possession of the British, with the district, in 1805, and is gradually increasing. Lat. 21° 41′ N., long. 72° 21′ E.

GOHUD, an extensive and mountainous district of the province of Agra, Hindostan, on the south side of the river Chumbul, and between the twenty-sixth and twenty-seventh degrees of north latitude. It is comparatively fertile; and abounds with strong positions; we may instance the celebrated fortress of Gualior. It is governed by a Hindoo prince, but has suffered much from the inroads of the Mahrattas.

Gohud, the capital, a fortified town, was formerly a village dependent upon Gualior. The present rannah's ancestors were zemindars of this village, and by caste Jauts, of the Bamrowly tribe. Prior to the battle of Paniput, in 1762, they had acquired Gualior, but were compelled to yield it to the Mahrattas. The rannah of Gohud now attempted to shake off the Mahratta yoke, but was subdued by Ragoonauth Row in 1766. On a subsequent rupture Gohud was taken by Madhajee Sindia in 1784.

In 1804 a treaty was entered into by the British government with the rannah of Gohud, Kirrut Singh Luckindra, by which he was to be established in the sovereignty of this and a considerable number of adjacent districts; in consideration of which he was to maintain a subsidiary force of three battalions, and make over the city and fortress of Gualior to the British. Afterwards he agreed to relinquish the country and fort of Gohud, and the other districts guaranteed to him by the former treaty, in consequence of which the British government granted him the districts of Dhelepoor, Baree, and Rajekerah, in perpetual sovereignty.

GOJAM, a populous province of south-eastern Abyssinia, about eighty miles in length, and forty in breadth. It is flat and full of rich pastures, enclosed by a range of very high mountains stretching in a semicircle along the course of the Abyssinian Nile. The cattle are very numerous and rather large.

GOIANA, a city of Brasil, in the province of Itamarca, on the shore of the river of the same name, three leagues from its mouth. Long. 35° 16′ W., lat. 7° 39′ S.

Goiana, a river of Brasil, running east, in the province of Rio Grande, and falling into the Atlantic Ocean.

GOIAZ, a province of Brasil, bounded chiefly by Minas Geraes on the east, Matto Grosso on the west, and Para on the north. Its greatest length is from lat. 6° to 21° S. It possesses several gold mines, and diamonds are found in some parts, but they are not in general of a pure water, though of good size. Cattle, which are bred on the frontiers, and some cotton, are the other objects of trade. The mules, on their return from Rio de Janeiro, are loaded with iron, salt, prints, baizes, fire-arms, powder and shot, hats, and a variety of artificers' tools. The inhabitants personally take away valuable articles to Rio de Janeiro, and lay out the proceeds in negroes (the first object of commerce), iron, salt, &c. The population of this district is small in comparison to its extent. According to Mr. Mawe it is a productive country, having numerous rivers well stored with fish, and woods abounding with fine birds. The principal town, Villa Boa, is situated in lat. 16° S., about eighty leagues to the west of Paracatu.

GO'ING, *n. s.* From go.

The act of walking.

> When nobles are their taylors' tutors,
> No hereticks burnt, but wenches suitors,
> Then comes the time, who lives to see't,
> That *going* shall be used with feet.
>
> *Shakspeare.*

Pregnancy.

> The time of death has a far greater latitude than that of our birth; most women coming, according to their reckoning, within the compass of a fortnight; that is, the twentieth part of their *going*.
>
> *Grew's Cosmologia Sacra.*

Departure.

> Thy *going* is not lonely; with thee goes
> Thy husband; him to follow thou art bound.
>
> *Milton.*

GO'LA, *n. s.* The same with cymatium.

> In a cornice the *gola*, or cymatium of the corona the coping, the modillions or dentelli, make a noble show. *Spectator.*

GOLCONDA, a province of Hindostan, now called Hyderbad. It was once the capital of an extensive kingdom under native Hindoo princes, and afterwards a principal division of the Bhamenee sovereignty, upon the fall of which it became the seat of a monarchy under the Cuttub Shahee dynasty. In 1690 it was surrendered, after a siege of seven months, to the Mogul army of Aurengzebe. The deposed sovereign, Abou Houssun, died in confinement here in 1704.

GOLD, *n. s.*
Gold'-beater, *n. s.*
Gold'-bound, *adj.*
Gold'en, *adj.*
Gold'enly, *adv.*
Gold'-finder. *n. s.*
Gold'-size, *n. s.*
Gold'-hammer, *n. s.*
Gold'ing, *n. s.*
Gold'ney, *n. s.*
Gold'-pleasure, *n. s.*
Gold'y-locks, *n. s.*
Gold'smith, *n. s.*
Gold'-finch, *n. s.*

Sax. ȝolꝺ; Wel. *golud*, riches. Either of geel, as Scaliger says, which is in Dut. to shine; 'or of another Dutch word, which is *gelten*, and signifies in Latin *valere*, in English to be of price or value: hence cometh their ordinary word *gel*, for money.'—Peacham. Used figuratively to express value; applied to different things from their color resembling gold; thus gold of pleasure, golden saxifrage, gold-hammer, gold-finch, goldney, goldy-locks, are names of herbs, birds, and fishes; gold-size is a yellow size; gold-smith, one who manufactures gold, &c.; gold-beater, one who beats or foliates

gold to gild other matter; a golden age is a happy and prosperous age.

——————— And forth we went,
Devoutly, soft, and esie pace to se,
Venus the goddes' image all of *golde*.
Chaucer. The Court of Love.

And, as I me advise
The *golden*-love, and leden-love they hight,
The tone was sad, the toder glad and light.
Id.

Ther maist thou see devising of hameis
So uncouth and so riche, and wrought so wele
Of *goldsmithry*, of bronding and of stele.
Id. The Knightes Tale.

And as I stode and cast aside mine eye,
Twas ware of the fairest medlar tree,
That ever yet, in all my life I se
As full of blossomes as it might be;
Therein a *gold-finch* leping pretily,
From bough to bough, and as him list, he ete
Here and there of buddes and floures swete.
Id. The Floure and the Leafe.

Upon her head she wore a crown of *gold*;
To shew that she had powre in things divine.
Spenser's Faerie Queene.

My brother Jacques he keeps at school, and report speaks *goldenly* of his profit.
Shakspeare. As You Like It.

Thou that so stoutly had resisted me,
Give me thy *gold*, if thou hast any *gold*;
For I have bought it with an hundred blows.
Shakspeare.

Neither chain nor *gold-smith* came to me. *Id.*

So sweet a kiss the *golden* sun gives not
To those fresh morning drops upon the rose;
Nor shines the silver moon one half so bright
Through the transparent bosom of the deep. *Id.*

Many young gentlemen flock to him every day, and fleet the time carelessly, as they did in the *golden* world. *Id.*

The king's a baw-cock, and a heart of *gold*,
A lad of life, an imp of fame. *Id. Henry V.*

Thy air,
Thou other *gold-bound* brow is like the first.
Shakspeare.

Gold hath these natures; greatness of weight, closeness of parts, fixation, pliantness or softness, immunity from rust, and the colour or tincture of yellow. *Bacon's Natural History.*

Of singing birds they have linnets, *goldfinches*, ruddocks, Canary-birds, blackbirds, thrushes, and divers others. *Carew.*

The gum of ivy is good to put into your *goldsize* and other colours. *Peacham on Drawing.*

Heaven's *golden* winged herald late he saw
To a poor Galilean virgin sent. *Crashaw.*

The good yeoman wears russet clothes, but makes *golden* payment, having time in his buttons, but silver in his pocket. *Fuller.*

Gold begets in brethren hate,
Gold in families debate;
Gold does friendship separate;
Gold does civil wars create.
These the smallest harms of it!
Gold alas! does love beget. *Cowley.*

Corrupt with *gold* thy wives and daughters bring
To the black idol for an offering. *Marvell.*

Our *goldbeaters*, though, for their own profit sake, they are wont to use the finest *gold* they can get, yet they scruple not to employ coined *gold*; and that the mint-masters are wont to alloy with copper or silver, to make the coin more stiff, and less subject to be wasted by attrition. *Boyle.*

Nine royal knights in equal rank succeed,
Each warrior mounted on a fiery steed
In *golden* armour glorious to behold;
The rivets of their arms were nailed with *gold*.
Dryden.

That verse which they commonly call *golden*, has two substantives and two adjectives, with a verb betwixt them to keep the peace. *Id.*

A *goldfinch* there I saw, with gaudy pride
Of painted plumes that hopped from side to side.
Id.

We readily say this is *gold*, and that a silver goblet, only by the different figures and colours represented to the eye by the pencil. *Locke.*

Golden russeting hath a gold coloured coat under a russet hair, and its flesh of a yellow colour.
Mortimer.

And see the guardian angels of the good,
Reclining soft on many a *golden* cloud. *Rowe.*

O cursed lust of *gold*, when for thy sake
The fool throws up his interest in both worlds,
First starved in this, then damned in that to come.
Blair's Grave.

His empty paunch that he might fill,
He sucked his vittels through a quill;
Untouched it passed between his grinders,
Or't had been happy for *goldfinders*. *Swift.*

The *goldsmith* or scrivener, who takes all your fortune to dispose of, when he has beforehand resolved to break the following day, does surely deserve the gallows. *Id.*

Thence arises that *golden* rule of dealing with others, as we would have others deal with us. *Watts.*

The lust of *gold* succeeds the lust of conquest:
The lust of *gold* unfeeling and remorseless!
The last corruption of degenerate man.
Dr. Johnson's Irene.

And forth an host of little warriors march
Grasping the diamond lance, and targe of *gold*.
Beattie. Minstrel.

Who is this?
Who truly looketh like a demigod,
Blooming and bright, with *golden* hair, and stature,
If not more high than mortal, yet immortal
In all that nameless bearing of his limbs,
Which he wears as the sun his rays.
Byron. Deformed Transformed.

GOLD, in chemistry and metallurgy, is a yellow metal of specific gravity 19·3. It is found in nature only in a metallic state, and most commonly in grains, ramifications, leaves or crystals, rhomboidal octahedral, or pyramidal. Its matrix is generally quartz, sandstone, siliceous schistus, &c. It is found also in the sands of many rivers, particularly in Africa, Hungary, and France, in minute irregular grains, called gold dust. Native gold is never completely pure; it is alloyed with silver or copper, and sometimes with iron and tellurium. The largest piece of native gold, that has been hitherto discovered in Europe, was found in the county of Wicklow, in Ireland. Its weight was said to be twenty-two ounces, and the quantity of alloy it contained was very small. Several other pieces, exceeding one ounce, have also been discovered at the same place, in sand, covered with turf, and adjacent to a rivulet. The following is Kirwan's arrangement of the ores of gold.

Species 1.—Native gold. Its color yellow, more or less dilute, or brownish-red, like Spanish

snuff, malleable and flexible. Found either in compact masses; or in spangles, inlaying, or disseminated; or capillary, arborescent, ramified, interwoven, or dentiform; or crystallised in cubic, pyramidal, prismatic, or tabular forms; or in grains visibly or invisibly mixed with various other substances. External lustre, 3. Internal 2. Metallic. Fracture, hackly. Hardness 5. Specific gravity exceeds 12, more or less in proportion to the quantity of silver or copper with which it is commonly alloyed, and the cavities it may contain.

The substances in or on which it is found are either stony, sandy, earthy, or inflammable, or ores of other metallic substances. Of the first, the most common is quartz, siliceous schistus, hornstone, sandstone, spar, gypsum, &c., in Hungary, Transylvania, Bohemia, &c.; or trap, or jasper, felspar, or in clays, as in Bohemia; or in the sand of various rivers, in different countries, as Hungary, France, Africa, &c.: particularly in the yellowish-red, and violet sands. It is so generally interspersed through earths of various kinds, that Bergman thinks it more extensively diffused, though in exceedingly small quantities, than any other metal, except iron.

If 100 lbs. of sand contain 24 grs. of gold, it is said the separation is worth attention. In Africa 5 lbs. of sand often contain 62 grs. of gold. The heaviest, which is often black or red, yields most. Gold interspersed through sand, is often separated by mere mechanical means, amply described in the Paris Memoirs for 1718 and 1786; in Born's Letters from Hungary, and in Diedric's Description des Gites des Minerals. Native gold is sometimes invisibly dispersed and disguised, sometimes visibly contained in the form of a brownish-red powder in martial pyrites, as in that in Adelfors in Sweden, and also in Norway, Bohemia, and Siberia. It seems now agreed that it is not really mineralised in these ores. For it is often extracted from them by the mere mechanical means of pounding and washing, or at least from the residuum left after solution in the nitrous acid; its quantity is generally very small, scarcely above 8 grs. in 10,000 of the ore, or 1 oz., or 1½ oz. in 1 cwt. of the ore. That of Facebay, in Transylvania, however, contains 12·5 per cent. of gold.

Gold is also extracted from a particular sort of argentiferous copper pyrites, called, in Hungary, gelf. This is found either massive, or crystallised in rhomboids, or other irregular quadrangular or polygon masses. Its contents in gold and silver are rich, but very unequal: much of the gold may be separated by pounding and washing. Muller concludes that gold exists in it in a state of dispersion, and not combined nor consequently mineralised.

It often also exists in a greenish-yellow copper pyrites, somewhat duller than the common, and containing besides iron, also manganese.

It is found mixed with arsenical pyrites in the valley of Zillar, near Saltzburgh. The quintal affords only twenty-five grains. It is separated by washing, and affords a profit of about £400 or £500 per annum.

It is sometimes found in the sulphurated silver ores of Hungary and Saxony, and is separated, after the expulsion of the sulphur, by nitrous acid, as the gold falls to the bottom in the form of black powder.

The most remarkable ores in Europe affording gold, are those of Nagaya, in Transylvania; they, properly speaking, are compounds of several sulphurated ores, among which native gold occurs either in the state of a metallic alloy, or more or less plentifully disseminated, though invisible by the help of microscopes.

Of these ores there are five sorts, the antimonial, the arsenical, the blendose, the manganesian, and the sylvanitic. The first and principal is the antimonial. Blatter erze of some, or gold ore of Nagaya. Its color is bluish-gray, or intermediate between that and the iron gray. It is found in plates of various thickness, adhering to, but separable from each other, or intersecting each other in various directions, and somewhat flexible. These, some say, are crystallised in hexangular forms, but Ruprecht denies it; between them the white ore presently to be mentioned is often found. Lustre 3. Metallic. Transparency 0. Their fracture foliaceous, inclining sometimes to the granular.

The hardness of the plates is 6. Their specific gravity 8·919. They scrape into flakes like plumbago, and like it stain the fingers. Soluble in acids with effervescence. When pulverised three per cent. of these plates are attractible by the magnet, and twenty-one per cent. soluble in nitrous acid. The solution is greenish, the residuum purplish: 100 parts of this ore contain about twelve of silver and gold, the remainder consists of iron, lead, and antimony, all sulphurated, and silex; the proportions are not accurately stated in the incomplete and unsatisfactory analyses that have as yet appeared.

The color of the arsenical ore is, according to Ruprecht, tin white, according to Muller, yellowish white, according to Born, yellowish gray. Its fracture granular or foliated, often striated or fibrous. Its specific gravity, 10·678. It is so fusible as not to bear roasting. When pulverised the magnet attracts nearly five per cent. of it, and nitrous acid dissolves 72, 5 per cent. of it. The color of the solution is light green, and of the residuum blackish-brown. Mild fixed alkalies afford, both with the solutions of this, and of the former ore, a light yellow precipitate. By Muller's account, it contains about twenty-five per cent. of auriferous silver.

Hence Werner calls it the silver ore of Nagaya. Born tells us it contains antimony, iron, and gold. The matrix of both these ores is a grayish quartz, or hornstone and silex mixed with white calx of manganese.

Of the blendose ores, Muller mentions two varieties, the black and the red, or the reddish-brown (this last phosphoresces, when scraped in the dark; the black does not), whose external appearances do not probably differ from those of the common blendose ores, besides zinc, iron and sulphur; most of them contain antimony also, and some manganese.

The specific gravity of the black, according to Muller, is 5·398; which exceeds the specific gravity of mere blend. The nitrous acid dissolves ninety-seven per cent. of it with an hepatic

smell, which common blends yield only when treated with marine or vitriolic acids. It contains ·062 per cent. of auriferous silver. The reddish-brown is still poorer, and seems a mixture of blend, manganese, lead, and arsenic, with a small proportion of auriferous silver. The red exposed to the blow-pipe gives a purple tinge to borax if nitre be added. The black does the same, even without that addition, a sign that they contain manganese.

The manganesian ore consists of thin laminæ, of a gray color, somewhat withered, inserted in a matrix of whitish manganese. According to Hacquet it is very poor in gold, but baron Born tells us it contains twenty-five per cent. of this metal, and is the richest of all the ores found in that country. Yet it is so light, that it is called cotton ore.

The sylvanitic ore; Weisses golderz of the Germans; Aurum Graphicum, of some; is according to baron Born of a whitish color, intermediate betwixt that of antimony and bismuth. Lustre, 3. It consists of amorphous plates, whose fracture is granular, like that of steel.

Its fragments prismatic. Its hardness from 4 to 5. Brittle. Its specific gravity, 5·723; its matrix an aggregate of lithomarga and quartz, with pyrites interspersed. Before the blow-pipe it decrepitates and melts like lead. It burns with a lively brownish flame and disagreeable smell, and at last vanishes in a white smoke, leaving only a whitish earth.

According to Wallerius, native gold is found, 1. In solid masses. In Hungary, Transylvania, and Peru. 2. In grains. In the Spanish West Indies. 3. In a vegetable form, like the branches or twigs of plants. 4. In a drusic figure, as if composed of groups or clusters of small particles united together, found in Hungary. 5. Composed of thin plates, on thin pellicles covering other bodies, found in Siberia. 6. In a crystalline form in Hungary. Gold is also found in the form of thick solid pieces. It is in general more frequently imbedded in quartz, and mixed with it than with any other stone; and the quartz in which the gold is found in the Hungarian mines, Mr. Magellan tells us, is of a peculiarly mild appearance. Sometimes, however, it is found in limestone, hornblende, &c. Europe is principally supplied with gold from Chili and Peru in South America. A small quantity is likewise imported from China and the coast of Africa. The principal gold mines of Europe are those of Hungary, Saltzburg, and Adelfors in Smaland. Some gold is also extracted from the silver mines of Ostersilvarberget, in the province of Dalarne. Native gold has been found in Lapland, above Tornea, and in Westmanland. In Peru it is found mixed with a stony matter not well known, from which it is extracted by amalgamation. Sometimes kernels or lumps of a spongy texture, and very light, are met with, which contain a good quantity of gold dust. Gold is also found separate from any matrix, in lumps of visible grains mixed with sand in the beds of rivers.

Perfectly pure gold may be obtained, by dissolving the gold of commerce in nitro-muriatic acid, and precipitating the metal, by adding a weak solution of sulphate of iron. The precipitate, after being well washed and dried, is pure gold. For the methods of analysing the ore or metal, see Assaying, Cupel, Metallurgy, &c.

Pure gold is very soft, tough, ductile, and malleable, unaltered by the most powerful furnaces, but volatilised by the intense heat of powerful burning mirrors; and it has been driven up in fumes by a stream of oxygen urged upon it when red hot. The electric shock converts it into a purple oxide, as may be seen by transmitting that commotion through gold leaf, between two plates of glass; or by causing the explosive spark of three or more square feet of coated glass to fall upon a gilded surface. A heat of 32° W., or perhaps 1300° F. is required to melt it, which does not happen till after ignition. Its color, when melted, is of a bluish-green; and the same color is exhibited by light transmitted through gold leaf. But silver, copper, and all the rest of the metals which can be formed into leaves, are perfectly opaque.

No acid acts readily upon gold but aqua regia and aqueous chlorine. Chromic acid, added to muriatic, enables it to dissolve gold.

When gold is immersed in aqua regia, an effervescence takes place, and the solution tinges animal matters of a deep purple, and corrodes them. By careful evaporation, fine crystals of a topaz color may be obtained. The gold is precipitated from its solvent by a great number of substances. Lime and magnesia precipitate it in the form of a yellowish powder. Alkalies exhibit the same appearance; but an excess of alkali redissolves the precipitate. The precipitate of gold, obtained from aqua regia by the addition of a fixed alkali, appears to be a true oxide, and is soluble in the sulphuric, nitric, and muriatic acids; from which, however, it separates by standing, or by evaporation of the acids. Gallic acid precipitates gold of a reddish color, very soluble in the nitric acid, to which it communicates a fine blue color.

Ammonia precipitates the solution of gold much more readily than fixed alkalies. This precipitate, which is of a brown, yellow, or orange color, possesses the property of detonating with a considerable noise when gently heated. It is known by the name of fulminating gold. See Powder, Fulminating. When precipitated from this solution by tin, it forms the purple precipitate of Cassius, so much used in enamelling. This consists of an oxide of gold, mixed with an oxide of tin. Sulphurets precipitate gold from its solvent, the alkali uniting with the acid, and the gold falling down combined with the sulphur; of which, however, it may be deprived by moderate heat.

The solution of gold in sulphuric ether appears to crystallise after a considerable time. Mr. Sivright having allowed a solution of gold in sulphuric ether to stand four days in a vessel, with a cork and a piece of leather tied over it, found that a great part of the liquid had evaporated, leaving the gold in the form of a thin plate, which has the usual brightness of pure gold, and resembles the flat pieces of native copper found in Cornwall. There were distinct crystals in one or two parts of the plate.

The peroxide of gold thrown down by potash, from a solution of the neutral muriate, consists, according to Berzelius, of 100 gold and twelve oxygen. It is probably a trit-oxide. The protoxide of a greenish color is procured by treating with potash water muriate of gold, after heat has expelled the chlorine. It seems to consist of 100 metal + 4 oxygen. The prime equivalent of gold comes out apparently 25.

Most metals unite with gold by fusion. With silver it forms a compound, which is paler in proportion to the quantity of silver added. It is remarkable, that a certain proportion, for example a fifth part, renders it greenish, but occasions hardly any perceptible alteration of ductility, hardness, or mean specific gravity.

A strong heat is necessary to combine platina with gold: it greatly alters the color of the gold, if its weight exceed the forty-seventh part of the mass.

Mercury is strongly disposed to unite with gold, in all proportions, with which it forms an amalgam: this, like other amalgams, is softer the larger the proportion of mercury. It softens and liquifies by heat, and crystallises by cooling. Lead unites with gold, and considerably impairs its ductility, one-fourth of a grain to an ounce rendering it completely brittle. It gives an alloy externally resembling fine pale gold, but which is as brittle as glass, is wholly destitute of metallic lustre, and has a fine-grained porcellaneous appearance: its specific gravity a little less than the mean. The very fumes of this metal are nearly as prejudicial to the ductility of gold as those of bismuth.

Copper renders gold less ductile, harder, more fusible, and of a deeper color. This is the usual addition in coin, and other articles used in society. Tin renders it brittle in proportion to its quantity; but it is a common error of chemical writers to say, that the slightest addition is sufficient for this purpose. When alloyed with tin, however, it will not bear a red heat. With iron it forms a gray mixture, which obeys the magnet. This metal is very hard, and is said to be much superior to steel for the fabrication of cutting instruments.

With bismuth, in the proportion of thirty-eight grains to the ounce, it yields an alloy of a pale greenish yellow, excessively brittle, and exhibiting a fine-grained earthy fracture: its specific gravity somewhat greater than the mean. If standard gold be alloyed with even a quarter of a grain of bismuth in the ounce, the mixture, although in color and texture resembling gold, is yet perfectly brittle.

Arsenic, on account of its volatility, can be combined with gold only in small proportions.

The alloy, or mixed metal hence produced, is of a gray color, coarse granular fracture, and very brittle.

Antimony, mixed by fusion with either fine or standard gold in the proportion of not more than ¼ gr. to the ounce (being not more than $\frac{1}{1910}$ of the whole mass), will give a brittle compound of a close granular fracture, with little metallic lustre: while, with a change quite as extraordinary as in nickel, mixed in the proportion of thirty-eight grains to the ounce, produces an alloy of the color of fine brass, with a coarse-grained earthy fracture, and very brittle: its specific gravity being somewhat less than the mean. With manganese, in its black oxide, gold will combine, and produce an alloy of a reddish gray, capable of receiving a brilliant lustre like steel: the mixed metal is exceedingly hard, and so far possessed of ductility as to be in some measure flattened by the hammer before it breaks.

Zinc greatly injures the ductility of gold, and, when equal in weight, a metal of a fine grain is produced, which is said to be well adapted to form the mirrors of reflecting telescopes, on account of the fine polish it is susceptible of, and its not being subject to tarnish. The alloys of gold with molybdena are not known. It could not be mixed with tungsten, on account of the infusibility of this last substance.

Mr. Hatchett gives the following order of different metals, arranged as they diminish the ductility of gold: bismuth, lead, antimony, arsenic, zinc, cobalt, manganese, nickel, tin, iron, platina, copper, silver. The first three were nearly equal in effect; and the platina was not quite pure.

For the purposes of coin, Mr. Hatchett considers an alloy of equal parts of silver and copper as to be preferred, and copper alone as preferable to silver alone.

The limits of the ductility and malleability of gold are not known. According to Cronstedt, one grain of it may be stretched out so as to cover ninety-eight Swedish ells, equal to 63·66 English yards of silver wire; but Wallerius asserts, that a grain of gold may be stretched in such a manner as to cover 500 ells of wire. At any rate, the extension is prodigious; for, according to the least of these calculations, the 1,000,000th part of a grain of gold may be made visible to the naked eye. Nor is its malleability inferior to its ductility. Poyle, quoted by Apligny in his Treatise of Colors, says, that one grain and a half of gold may be beaten into fifty leaves of one inch square, which, if intersected by parallel lines drawn at right angles to each other, and distant only the 100th part of an inch from each other, will produce 25,000,000 of little squares, each very easily discernible to the naked eye.

By the weight and measure of the best wrought gold leaf, it is found that one grain is made to cover 56¾ square inches; and from the specific gravity of the metal together with this admeasurement, it follows that the leaf itself is $\frac{1}{282000}$ part of an inch thick. This, however, is not the limit of the malleability of gold; for the goldbeaters find it necessary to add three grains of copper in the ounce to harden the gold, which otherwise would pass round the irregularities of the newest skins, and not over them; and in using the old skins, which are not so perfect and smooth, they proceed so far as to add twelve grains. From further calculation it appears that sixteen ounces of gold, which would form a cube of about one inch and a quarter, would be sufficient to gild a silver wire equal in length to the circumference of the globe. See CHEMISTRY.

GOLDBEATER'S SKIN, *n.s.* The intestinum rectum of an ox, which goldbeaters lay between the leaves of their metal while they beat it, where-

by the membrane is reduced thin, and made fit to apply to cuts or small fresh wounds, as is now the common practice.

When your gillyflowers blow, if they break the pod, open it with a penknife at each division, as low as the flower has burst it, and bind it about with a narrow slip of *goldbeater's skin*, which moisten with your tongue, and it will stick together. *Mortimer.*

Golden Fleece, in the ancient mythology, was the skin and fleece of the ram upon which Phryxus and Helle are said to have swum over the sea to Colchis; and which, being sacrificed to Jupiter, was hung upon a tree in the grove of Mars, guarded by two brazen-hoofed bulls, and a monstrous dragon that never slept; but was taken and carried off by Jason and the Argonauts. Some authors have endeavored to show that this fable is an allegorical representation of some real history, particularly of the philosopher's stone. Others have explained it by the profit of the wool-trade to Colchis, or the gold which they commonly gathered there with fleeces in the rivers. See Argonauts.

Golden Fleece, Order of the, a military order instituted by Philip the Good, duke of Burgundy, 1427; thus named from a representation of the golden fleece, borne by the knights on their collars, which consisted of flints and steels. The king of Spain, as duke of Burgundy is grand master of the order; the number of knights is fixed to thirty-one. It is said to have been instituted on occasion of an immense profit which that prince made by wool; though others will have a chemical mystery couched under it, as that famous one of the ancients, which the adepts pretend to be the secret of the elixir vitæ, written on the skin of a sheep.

Gold Thread, or spun gold, is a gilt wire, wrapped or flatted over a thread of yellow silk, by twisting it with a wheel and iron bobbins. By means of a curious machinery, a number of threads is thus twisted at once by the turning of a wheel. The principal art consists in so regulating the motion, that the several circumvolutions of the wire, on each thread, may just touch one another, and form, as it were, one continued covering. At Milan, it is said, they make a sort of flatted wire, gilt only on one side, which is wound upon the thread, so that only the gilt side appears. There is also a gilt copper wire, made in the same manner as the gilt silver, chiefly at Nuremberg. The Chinese, instead of flatted gilt wire, use slips of gilt paper, which they interweave in their stuffs, and twist upon silk threads.

GOLDONI, a celebrated dramatic author, born at Venice in 1707. Having shown an early attachment to dramatic performances his father, Dr. Goldoni, had a small theatre erected in his own house, in which, while a mere child, he and his companions amused themselves by acting comedies. Having finished his grammatical and rhetorical studies at Venice and Prague, he went to Rimini to study philosophy; but, preferring the theatre to Aristotle, he went off with a company of comedians to Chiozzo. After attempting to study the law at Venice, he became secretary to the resident of that state at Milan. In this city he wrote his Venetian Gondolier, the first of his comedies that was acted and printed; and soon after composed several other pieces for a Venetian company then at Milan, and whom he accompanied to Genoa, where he married. After visiting Tuscany, Florence, and Pisa, he returned to Venice, and wrote comedies for the theatre of St. Angelo. These cost him so little trouble, that it is said he wrote sixteen new comedies, besides forty-two other pieces for that theatre, within a year; and many of these, though so rapidly executed, are considered as his best productions. The first edition of his works was published in 10 vols. 8vo, 1753. He wrote afterwards a great number of pieces for the theatre at St. Luke, which were published under the title of The New Comic Theatre. He composed fifty-nine other pieces between 1753 and 1761; and, on the invitation of duke Philip, visited Parma, from whence he went to Rome. He next went to Paris on the invitation of M. Zenuzzi, the chief actor on the Italian theatre there, with whom he engaged for two years. After this, he was employed as an Italian teacher to the princesses, aunts to the unfortunate Louis XVI.; for which he received 4000 livres a-year, and a present of 100 louis d'ors in a gold box. In his sixty-second year he wrote a French comedy, entitled Bourru Bienfaisant, which was acted at Louis XVI.'s marriage; and for which he received 150 louis from the king, besides considerable sums from the performers and booksellers. He died at Paris in 1792, aged eighty-five. As a dramatic author, he is reckoned equal to the best comic poets of modern times; and in fertility of invention superior to them all. His whole works were printed at Leghorn, in 1788—91, in 31 vols. 8vo. He has been styled the Moliere of Italy; and Voltaire, in a letter to the marquis Albergati, called him the Painter of Nature. His favorite work, generally reckoned his master-piece, was his Terence. His last piece was his Volponi.

A Goldsmith, or Silversmith, is an artist who makes vessels, utensils, and ornaments, in gold and silver. There is a vast variety in the works made, and tools used, by goldsmiths, which we cannot here particularise. Works that have raised figures are cast in a mould, and afterwards carved, or polished and finished; plates or vessels of silver or gold are beat out from thin flat plates; table and tea-spoons, &c., are beat out from solid ingots, and their mouths struck up with a punch; tankards, and other vessels of that kind, are formed of plates soldered together, and their mouldings are beat, not cast. The business of the goldsmiths formerly required more labor than it does at present; for they were obliged to hammer the metal from the ingot to the thinness they wanted; but, since the invention of flatting-mills, the metals are reduced to the thinness required at a small expense. As the goldsmith often has to make his own moulds, he ought to be a good designer, and have a taste in sculpture: he also ought to know enough of metallurgy to be able to assay and refine gold and silver, and to mix the exact quantity of alloy. The goldsmiths in London employ different hands under them for the various branches of their trade; such as jewellers, box-makers, toy-makers, turners, gilders, burnishers, chasers, refiners, founders, &c. Their wares must be assayed by the wardens of

their own company in London, and marked; and the gold and silver must be of the standard fineness, under a penalty of £10. Any false metal may be seized and forfeited to the king. The cities of Edinburgh, York, Exeter, Bristol, &c., have also places appointed for assaying gold and silver plate. Plate sent to the assay-office, when discovered to be coarser than the standard, is broken and defaced; and the fees for assaying are limited.

Goldsmith (Oliver), was born at Roscommon, in Ireland, in 1729. His father, who possessed a small estate in that county, had nine sons, of whom Oliver was the third. After being instructed in the classics, he was, with his brother the Rev. Henry Goldsmith, placed in Trinity College, Dublin, about the end of 1749. In this seminary he took the degree of B. D.; but, his brother not being able to obtain preferment, Oliver turned to the study of physic; and, after attending some courses of anatomy in Dublin, proceeded to Edinburgh in 1751, where he studied medicine under the professors of that university. His benevolent disposition soon involved him in difficulties; and he was obliged precipitately to leave Scotland, in consequence of an engagement to pay a considerable sum for a fellow-student. A few days after, about the beginning of 1754, he arrived in Sunderland, near Newcastle, where he was arrested at the suit of a tailor in Edinburgh, to whom he had given security for his friend. By the good offices of Lachlan Maclane, esq. and Dr. Sleigh, then in college, he was delivered out of the hands of the bailiff; and took his passage on board a Dutch ship to Rotterdam, where, after a short stay, he proceeded to Brussels. He then visited great part of Flanders; and after passing some time at Strasburg and Louvain, where he took the degree of M. B., he accompanied an English gentleman to Berne and Geneva. He travelled on foot during the greatest part of his tour, having left England with very little money. Being capable of sustaining fatigue, and not easily terrified at danger, he became enthusiastically fond of visiting different countries. He had some knowledge of French and of music, and played tolerably well on the German flute; which, from an amusement, became at times the means of subsistence. His learning procured him an hospitable reception at most of the religious houses; and his music made him welcome to the peasants of Flanders and other parts of Germany. 'Whenever I approached,' he used to say, 'a peasant's house towards night-fall, I played one of my most merry tunes; and that procured me not only a lodging, but subsistence for the next day: but in truth, I must own, whenever I attempted to entertain persons of a higher rank, they always thought my performance odious, and never made me any return for my endeavours to please them.' On his arrival at Geneva, he was recommended as a travelling tutor to a young man who had been left a considerable sum of money by his uncle, a pawnbroker, near Holborn. During Goldsmith's continuance in Switzerland, he assiduously cultivated his poetical talents, of which he gave some proofs while at the college of Edinburgh. It was here he sent the first sketch of his delightful poem called The Traveller, to his brother the clergyman in Ireland, who lived with an amiable wife on an income of only £40 a-year. From Geneva Mr. Goldsmith and his pupil visited the south of France; where the young man, upon some disagreement with his preceptor, paid him the small part of his salary which was due, and embarked at Marseilles for England. Our wanderer was left once more upon the world at large, and passed through various difficulties in traversing the greatest part of France. At length, his curiosity being satisfied, he bent his course towards England, and arrived at Dover the beginning of the winter of 1758. When he came to London, his cash did not amount to two livres. Being an entire stranger, his mind was filled with the most gloomy reflections. With difficulty he discovered that part of the town in which his old acquaintance Dr. Sleigh resided. This gentleman received him with the warmest affection, and liberally invited him to share his purse till some establishment could be procured for him. Goldsmith, unwilling to be a burden to his friend, eagerly embraced an offer which was made him soon after to assist the late Rev. Dr. Milner in an academy at Peckham; and acquitted himself greatly to the doctor's satisfaction; but having obtained some reputation, by the criticisms he had written in the Monthly Review, Mr. Griffith, the proprietor, engaged him in the compilation of it; and, resolving to pursue the profession of an author, he returned to London, as the mart where abilities of every kind meet distinction and reward. As his finances were not in a good state, he adopted a plan of the strictest economy; and took lodgings in an obscure court in the Old Bailey, where he wrote several ingenious pieces. The late Mr. Newberry, who gave great encouragement to men of literary abilities, became a patron to him, and introduced him as one of the writers in the Public Ledger, in which his Citizen of the World originally appeared, under the title of Chinese Letters. His fortune now began to improve. The simplicity of his character, the integrity of his heart, and the merit of his productions, made his company very acceptable to a number of respectable families; and he emerged from his shabby apartments in the Old Bailey to the politer air of the Temple, where he took handsome chambers, and lived in a genteel style. The publication of his Traveller, and his Vicar of Wakefield, was followed by the performance of his comedy of the Good-natured Man at Covent-Garden theatre, and placed him in the first rank of the poets of the eighteenth century. Among many other persons of distinction who were desirous to know him, was the duke of Northumberland: and a circumstance that attended his introduction to that nobleman shows a striking trait of his character. 'I was invited,' said the Doctor, 'by my friend Mr. Percy, to wait upon the duke, in consequence of the satisfaction he had received from the perusal of some of my productions. I dressed myself in the best manner I could; and, after studying some compliments I thought necessary on such an occasion, proceeded to Northumberland-house, and ac-

quainted the servants that I had particular business with his Grace. They showed me into an antichamber; where, after waiting some time, a gentleman, very genteely dressed, made his appearance. Taking him for the duke, I delivered all the fine things I had composed in order to compliment him on the honor he had done me; when, to my great astonishment, he told me I had mistaken him for his master, who would see me immediately. At this instant the duke came into the apartment; and I was so confused on the occasion, that I wanted words barely sufficient to express the sense I entertained of the duke's politeness, and went away extremely chagrined at the blunder I had committed.' Another anecdote exhibits the strict integrity of his character. Previous to the publication of his Deserted Village, the bookseller had given him a note for 100 guineas for the copy, which the Doctor mentioned a few hours after to one of his friends: who observed, it was a very great sum for so short a performance: 'In truth,' replied Goldsmith, 'I think so too; I have not been easy since I received it; therefore I will go back and return him his note:' which he absolutely did; and left it entirely to the bookseller to pay him according to the profits produced by the sale of the piece; which, however, turned out very considerable. During the last rehearsal of his comedy, entitled, She stoops to Conquer, which Mr. Coleman had no opinion would succeed, on the Doctor's objecting to the repetition of one of Tony Lumpkin's speeches, being apprehensive it might injure the play, the manager with great keenness replied, 'Psha, my dear Dr. do not be fearful of squibs, when we have been sitting almost these two hours upon a barrel of gunpowder.' The piece, however, was received with uncommon applause by the audience; and the severity of Coleman's observation put an end to the Doctor's friendship for him. Notwithstanding the great success of his pieces, by some of which he cleared £1800 in one year, his circumstances were not in a prosperous situation; partly owing to the liberality of his disposition, and partly to a habit of gaming, of the arts of which he knew very little, and thus became the prey of those who took advantage of his simplicity. Before his death he published the prospectus of a Universal Dictionary of Arts and Sciences; and, as his literary friends, Sir Joshua Reynolds, Dr. Johnson, Mr. Beauclerc, Mr. Garrick, and others, had undertaken to furnish him with articles upon different subjects, he entertained the most sanguine expectations from it. The undertaking, however, did not meet with that encouragement from the booksellers, which he had imagined it would receive; and he lamented this circumstance almost to the last hour of his life. He had been for some years afflicted, at different times, with a violent strangury, which contributed to embitter the latter part of his life; and which, united with the vexations which he suffered upon other occasions, brought on a kind of habitual despondency. In this unhappy condition he was attacked by a nervous fever, which terminated in his death, on the 4th of April, 1774. His character is justly expressed by Pope:—

In wit a man, simplicity a child.

The learned leisure he loved to enjoy was often interrupted by distresses which arose from the liberality of his temper, and which sometimes threw him into loud fits of passion; but this impetuosity was corrected upon reflection; and his servants have been known upon these occasions, purposely to throw themselves in his way, that they might profit by it immediately after; for he who had the good fortune to be reproved, was certain of being rewarded for it. The universal esteem in which his poems were held, and the repeated pleasure they gave in the perusal, is a striking test of their merit. He was a studious and correct observer of nature; happy in the selection of his images, in the choice of his subjects, and in the harmony of his versification; and, though his embarrassed situation prevented him from finally revising many of his productions, his Hermit, his Traveller, and his Deserted Village, claim a place among the most finished pieces in the English language. Besides the works above mentioned, he wrote, 1. History of the Earth and Animated Nature, 6 vols 8vo. 2. History of England, 4 vols. 8vo. 3. History of Rome, 2 vols. 4. Abridgements of the two last for the use of schools. 5. A view of Experimental Philosophy, 3 vols. 8vo. A posthumous work. 6. Miscellanies, &c.

GOLETTA, or Gouletta, the port of Tunis, being a channel of communication between the lake and sea. It was formerly deep and extensive, but is reduced now to a depth nowhere exceeding six feet. It is defended on each side by a well-built castle.

GOLF, a game much practised in Scotland, and said to be peculiar to this country. It has been very ancient; for there are statutes prohibiting it as early as 1457, lest it should interfere with the sport of archery. Some derive the name from a Dutch game, called Kolf, in some respects similar, being played with clubs, though in others very different. Golf is commonly played on rugged broken ground, covered with short grass, near the sea-shore. A field of this sort is in Scotland called links. The game is generally played in parties of one or two on each side, Each party has an exceedingly hard ball, somewhat larger than a hen's egg. This they strike with a slender and elastic club, about four feet long, crooked in the head, and having lead run into it to make it heavy. The ball, being struck with this club, will fly to the distance of 200 yards, and the game is gained by the party who puts his ball into the hole with the fewest strokes. But the game does not depend solely upon the striking of the longest ball, but also upon measuring the strength of the stroke, and applying it in such directions as to lay the ball in smooth ground, whence it may be easily moved at the next stroke. To encourage this amusement, the city of Edinburgh, A. D. 1744, gave to the company of golfers a silver club, to be played for annually by the members, the victor to append a gold or silver piece to the prize. For their better accommodation, twenty-two of the members subscribed £30 each in 1768 for building a house for their meetings. The spot chosen for this purpose was the south west corner of Leith links,

where an area was feued from the magistrates of Edinburgh, and a commodious house and tavern built upon it.

GOLIUS (James), a celebrated professor of Arabic and the mathematics at Leyden, descended from a very honorable family, and born at the Hague in 1596. He studied at Leyden, under Erpenius; and, having acquired the learned languages, travelled into Asia and Africa. He was esteemed and honored by Muley Zidan, emperor of Morocco and the grand signior. He brought home many MSS. to Leyden; and in 1624 succeeded Erpenius. As he had been an eye-witness of the wretched state of Christianity in the Mahommedan countries, he endeavoured to procure a new edition of the New Testament, in the original language, with a translation into the vulgar Greek, by an Archimandrite; and, as some of these Christians use the Arabic tongue in divine service, he also dispersed among them an Arabic translation of the Confession of the Protestants, with the Catechism and Liturgy. He was likewise appointed interpreter to the states for the Arabic, Turkish, Persian, and other eastern languages. He published, 1. The life of Tamerlane, in Arabic. 2. The history of the Saracens, written by Elmacin. 3. Alferganus's elements of Astronomy, with a new version, and learned commentaries. 4. An excellent Arabic lexicon. 5. A Persian Dictionary. He died in 1667.

GOLL, *n. s.* Corrupted, as Skinner thinks, from Sax. þal or þol, whence pealþan, to handle or manage. Hands; paws; claws. Used in contempt, and obsolete.

They set hands, and Mopsa put her golden *golls* among them; and blind fortune, that saw not the colour of them, gave her the pre-eminence. *Sidney.*

GOLLEN, or Gella, a strait of the Baltic, between Stralsund and Rugen. On the north it is gradually filling up with sand, but is extending eastward.

GOLNITZ, a town in the palatinate of Zyps, Upper Hungary, where iron abounds. It is fourteen miles south-east of Kapsdorf. Population 5000.

GOLTZIUS (Henry), a famous engraver and painter, born in 1558, at Mulbreck, in the duchy of Juliers. He was taught engraving by Theodore Van Cuerenhert. He travelled through Germany into Italy; visited Bologna, Florence, Naples, Venice, and Rome. In this journey he adopted a singular disguise, making his servant pass for his master, while he himself appeared as a servant, kept by the other merely for his skill in painting. Under this disguise he enjoyed life in all its variety. On his return he settled at Haerlem, where he died in 1617, aged fifty-nine. No man ever surpassed, and few have equalled, him in the command of the graver and freedom of execution. He copied the style of Albert Durer, Lucas of Leyden, and other old masters, with astonishing exactness. He engraved several of his own designs on wood, in chiaro-scuro. Of his prints, which are very numerous, the following are the most celebrated: 1. Six large upright plates, styled his master-pieces. These he engraved, to show that he was perfectly capable of imitating the styles of Durer, Lucas, and others, whose works were then held in higher estimation than his own: for he had adopted a new manner, which he pursued because he thought it superior. It is said that, with one of them, the Circumcision, which he smoked to give it the more plausible air of antiquity, he actually deceived some of the first connoisseurs of that age; by one of whom it was bought for an original engraving of Albert Durer. The subjects of these plates are, The Annunciation of the Virgin; Her meeting with Elizabeth; the Nativity; the Circumcision; the Adoration of the Wise Men; the Holy Family. 2. The Judgment of Midas; and, 3, The Venetian Ball (both large plates lengthwise), from Theodore Bernard. 4. The Boy and Dog, a middling sized upright plate, from a design of his own; an admirable print. 5. The Necromancer, a middling sized upright oval print, in chiaro-scuro. 6. Night in her Chariot, the same.

Goltzius (Hubert), a learned German, born in Venlo, in Gueldres, in 1526. He travelled through Germany, France, and Italy, to make collections of medals, &c. He was the author of several excellent works, in which he was so accurate, that he had them printed at his own house, under his own correction, and even engraved the plates with his own hand. Among these his Imperatorum fere omnium vivæ imagines, a J. Cæsare ad Carolum V. ex veteribus numismatibus, is an admirable work. He died at Bruges, in 1583, aged fifty-seven.

GOMBROON, or Bunder Abbas, a celebrated sea-port of Laristan, in Persia, on a bay of the gulf of Ormus. Its trade was formerly extensive, being the principal port of all the south of Persia. The customs now do not amount to more than 20,000 rupees annually. It is fortified with double walls, and is subject to the imaum of Mascat.

GOMER, in Scripture history, the son of Japheth (Gen. x. 2), and, according to Josephus, father to the people of Galatia. The ancient inhabitants of that country were called Gomares before the Galatians seized possession of it. The Chaldee places Gomer in Africa; Bochart in Phrygia, because Phrygia, in Greek, has the same signification (a coal) as Gomer in Hebrew and Syriac. Others are of opinion that the ancient Cimbri, or Cimmerians, sprung from Gomer, and probably from them the Welsh, called Cymri. It is not improbable that Gomer, or the Gomerites, his descendants, peopled likewise Germany and Gaul; the name German not differing much from Gomerian. Cluvier conjecturing that the ancient Celtica comprehended Illyria, Germany, Gaul, Spain, and the British Isles, as all these people anciently spoke the same language, farther supposes that Gomer, or his family, peopled the countries in Asia, between the Paropamisus and mount Imaus, and between the confluence of the Oxus and Oby; whence these people are called Gomares by Ptolemy and Mela.

Gomer, a county of Hungary, between those of Liptau and Borsod, and extending along the rivers Rima and Sajo. The county of Kis-Hont was annexed to it in 1802; the two together containing an area of 1610 square miles, and 144,000 inhabitants. Its most remarkable mountains are

the Ochsenberg and Szinetz, connected with the Carpathians. Here are found the best iron, and at Theissholtz the only natural magnets in Hungary. The bread is also celebrated. At Agtelek there is also a curious cavern. The town has about 2000 inhabitants, and is ninety-two miles N. N. E. of Budah.

GOMERA, one of the most fertile of the Canary Isles, consists properly of a lofty mountain, the upper part of which is in winter covered with snow. It is about twenty miles long, and ten wide, but cultivation is confined to the coast; the centre being a great forest. The capital, of this name, is situated on the east coast, and has a good harbour. Population about 7000. Eighteen miles south-west of Teneriffe. Long. 17° 8′ W., lat. 28° 6′ N.

GOMPHO'SIS, *n. s.* Gr. γομφος, a nail. A particular form of articulation.

Gomphosis is the connexion of a tooth to its socket. *Wiseman.*

GOMPHRENA, globe amaranth, eternal or everlasting flower, in botany, a genus of the digynia order, and pentandria class of plants; natural order fifty-fourth, miscellaneæ. CAL. colored; the exterior one triphyllous, or diphyllous, with two carinated connivent leaflets; the nectarium cylindrical, with ten teeth: CAPS. monospermous. There are ten species; only one of which is commonly cultivated in our gardens, viz. the

G. globosa. It has an upright stalk branching all around, two or three feet high, garnished with oval, lanceolate, opposite leaves; and every branch and side-shoot terminated by a close globular head of flowers, composed of numerous, very small starry florets, closely covered with dry scaly calices placed imbricatim, persistent and beautifully colored purple, white, red, or striped and variegated. The flowers themselves are so small and closely covered with scaly calices, that they scarcely appear. The numerous closely placed scaly coverings, being of a dry firm consistence, colored and glittering, collected into a compact round head, about the size of an ordinary cherry, make a fine appearance. They are annual plants, natives of India; and require artificial heat to raise and forward them to a proper growth, so that they may flower in perfection, and produce ripe seed. They flower from June to November; and if the flowers are gathered when at full growth, and placed out of the sun they will retain their beauty several months.

GOMUT, a navigable river of Bengal, which traverses the district of Tippera from east to west, and falls into the Megna, some miles to the north of Chandpoor. It is navigable at all seasons.

GONAVE, an island and town in the bay of Leogane, on the western side of St. Domingo. It is forty miles long, and about nine broad. Petite Gonave is a smaller isle, about two miles each way, separated from the south-east corner of this by a channel three miles wide. Forty miles west by north-west of Port au Prince.

GONDAR, the capital of Abyssinia, seated on the top of a hill of considerable height, and surrounded by a valley of that name. It contains about 10,000 families in times of peace. At the west end of the town is the king's palace, formerly a structure of considerable consequence. See ABYSSINIA. The hill on which the town is built rises in the middle of the valley, through which run two rivers: one, the Kakha, coming from the mountain of the Sun, flanks all the south of the town; while the other called the Angrab, falling from the mountain Waggora, encompasses it on the north and north-east: both unite at the bottom of the hill about a quarter of a mile south of the town. Upon the bank opposite to Gondar, on the other side of the river, is a town of the Mahommedans. These places with the province around are now in the hands of the Galla.

GONDI (John Francis Paul), cardinal de Retz, was the son of Philip Emanuel de Gondi, count de Joigny, lieutenant-general, &c., and was born in 1613. From a doctor of the Sorbonne, he first became coadjutor to his uncle John Francis de Gondi, whom he succeeded in 1654 as archbishop of Paris; and was finally made a cardinal. He has drawn his own character in his memoirs with impartiality. From the greatest degree of debauchery, and still languishing under its consequences, he made himself admired as a popular preacher. At the age of twenty-three he was at the head of a conspiracy against the life of cardinal Richelieu; he precipitated the parliament into cabals, and the people into sedition: and was, says M. Voltaire, the first bishop who carried on a civil war without the mask of religion. However, he was at last obliged to quit France; and he lived the life of a vagrant exile for five or six years, till the death of his great enemy cardinal Mazarin, when he returned. After assisting in the conclave at Rome, which chose Clement IX., he retired from the world. Voltaire says, that in his youth he lived like Catiline, and in his old age like Atticus. He died in 1679. He wrote his memoirs in his retirement; the best edition of which is that of Amsterdam, 4 vols. 12mo., 1710.

GO'NDOLA, *n. s.* } Fr. *gondole*. A boat much used in Venice; a small boat: the gondolier is the boatman.
GO'NDOLIER. }

He saw did swim
Along the shore, as swift as glance of eye,
A little *gondelay*, bedecked trim
With boughs and harbours woven cunningly.
Spenser.

In a *gondola* were seen together Lorenzo and his amorous Jessica. *Shakspeare. Merchant of Venice.*

Your fair daughter,
Transported with no worse nor better guard,
But with a knave of hire, a *gondolier*,
To the gross clasps of a lascivious Moor.
Shakspeare.

As with *gondolas* and men, his
Good excellence the duke of Venice
Sails out, and gives the gulph a ring. *Prior.*

Nor shall the muse through narrow Venice stray,
Where *gondolas* their painted oars display. *Gay.*

'Tis sweet to hear
At midnight on the blue and moonlight deep,
The song of oar of Adria's *gondolier*,
By distance mellowed, o'er the waters sweep.
Byron.

GONE, *part. preter.* From go. See *To* Go.

Advanced; forward in progress.

I have known sheep cured of the rot, when they have not been far *gone* with it, only by being put into broomlands. *Mortimer.*

The Observator is much the brisker of the two, and, I think, farther *gone* of late in lyes and impudence than his Presbyterian brother. *Swift.*

Ruined; undone.

He must know 'tis none of your daughter nor my sister; we are *gone* else.

Shakspeare. Winter's Tale.

I'll tell the story of my life,
And the particular accidents *gone* by,
Since I came to this isle. *Id. Tempest.*

Lost; departed.

When her masters saw that the hope of their gains were *gone*, they caught Paul and Silas.

Acts xvi. 19.

Speech is confined to the living, and imparted to only those that are in presence, and is transient and *gone*. *Holder.*

Dead; departed from life.

I mourn Adonis dead and *gone*. *Oldham.*

A dog, that has his nose held in the vapour loses all signs of life; but carried into the air, or thrown into a lake, recovers, if not quite *gone*.

Addison on Italy.

GO'NFALON, *n.s.* } Ital. *gonfalon*; French
GO'NFANON. } *gonfanon*; Islandic, *gunfana* from *gunn*, a battle, and *fani*, a flag (Lye). An ensign; a standard.

Ten thousand thousand ensigns high advanced,
Standards and *gonfalons*, 'twixt van and rear,
Stream in the air. *Milton.*

GONONG API, one of the Banda islands at the north-east end of the harbour of Beema, in the island of Sumbawa, and forming the west side of the entrance of Sapy Straits. It is a volcanic mountain, about 1500 feet in height, terminating in two high peaks; the soil being astonishingly fertile. It is only separated from Neira by a narrow strait, and has the appearance of an immense heap of cinders.

GONONG TELLO, or Tominie Bay, a large bay of the island of Celebes, nearly 180 miles long from east to west, and from fifty to ninety broad. It deeply indents the north-east coast, and abounds in small rocky islands and shoals, particularly towards the south coast. Longitude of the entrance 124° E., lat. 0° 12′ S.

GONONG TELLO, or GOONONG TELLO, a town of Celebes, situated on a river of the same name, on the south side of the above bay. The Dutch had formerly a settlement here, which in 1797 was taken by the English. The inhabitants are Malays, who carry on a considerable trade in the exportation of gold, tortoise-shell, &c. Long. 123° E., lat. 0° 28′ N.

GONORRHŒ'A, *n.s.* Gr. γονος and ρεω. A morbid running of venereal hurts.

Rauty mummy or stone mummy grows on the tops of high rocks; they powder and boil it in milk, and then give it to stop *gonorrhoeas*. *Woodward.*

GONORRHŒA, from γονη, the semen, and ρεω, to flow; from a supposition of the ancients, that it was a seminal flux. A genus of disease in the class locales, and order apocenoses of Dr. Cullen's arrangement, who defines it a preternatural flux of fluid from the urethra in males, with or without libidinous desires. Females, however, are subject to the same complaint in some forms. He makes four species, viz.:—

1. Gonorrhœa pura, or benigna; a puriform discharge from the urethra, without dysuria, or lascivious inclination, and not following an impure connexion.

2. Gonorrhœa impura, maligna, syphilitica, virulenta; a discharge resembling pus, from the urethra, with heat of urine, &c., after impure coition, to which often succeeds a discharge of mucus from the urethra, with little or no dysury, called a gleet. This disease is also called fluor albus malignus. Blennorrhagia by Swediaur. In English, a clap, from the old French word clapises, which were public shops, kept and inhabited by single prostitutes, and generally confined to a particular quarter of the town, as is even now the case in several of the great towns in Italy. In Germany the disorder is named tripper, from dripping; and in French, chaudpisse, from the heat and scalding in making water.

GONTAULT (Armand de), lord of Biron, marshal of France, a celebrated general in the sixteenth century, who signalised himself by his valor and conduct in several sieges and battles. He was made grand master of the artillery in 1569. He was the first who declared for Henry IV. He brought a part of Normandy under his subjection, and dissuaded him from retiring to England, or Rochelle. He was killed by a cannon-ball at the siege of Epernay, on the 26th of July, 1592. He used to carry a pocket-book, in which he wrote down every thing remarkable, which gave rise to a proverb at court; when a person happened to say any thing remarkable, 'You have found that in Biron's pocket-book.'

GOOCHLAND, a county in Virginia, surrounded by Louisa, Fluvanna, Henrico, Hanover, and Powhatan counties. It is forty miles long, and fourteen broad.

GOOD, *adj., n.s., adv.* & *interj.*
GOOD-CONDI'TIONED.
GOOD'-NOW, *interj.*
GOOD'LINESS, *n.s.*
GOOD'LY, *adj.* & *adv.*
GOOD'LYHOOD, *n.s.*
GOOD'MAN, *n.s.*
GOOD'NESS, *n.s.*
GOODS,
GOOD'Y, *n.s.*
GOOD'Y-SHIP, *n.s.*

} Sax. ᵹoᵭ, Goth. Swed. and Belgic, *god*; Teut. *got*. The adjective of god, deity: supposed also by some to be derived from Latin *gaudeo*; Gr. γηθειν; Heb. *chada*. The adjective good, which is the radix whence all the others are derived, stands opposite to evil of every kind, whether physical or moral; it is indiscriminately applied with or without other words as expressive of whatever, in person, condition, or prospect, appears to be fit, beneficial, pure, wholesome, entire, true, desirable, or gratifying: the modifications are consequently very numerous, but all include the primary meaning; this is applicable to the dispositions of moral agents or the qualities of inanimate objects. Goody and goodman are familiar appellations of civility, generally ironical.

Having, either generally, or for any particular end, such physical qualities as are expected or desired. Not bad; not ill.

God saw every thing that he had made, and behold it was very *good*. *Gen.* i. 31.

An universe of death! which God by curse
Created evil; for evil only *good*. *Milton.*

Resolved
From an ill cause to draw a *good* effect. *Dryden.*

Notwithstanding this criticism the verses were *good*. *Spectator.*

A man is no more to be praised upon this account, than because he has a regular pulse, and a *good* digestion. *Addison.*

Ah! ne'er so dire a thirst of glory boast,
Nor in the critick let the man be lost!
Good nature and *good* sense must ever join;
To err is human, to forgive, divine. *Pope.*

Proper; fit; convenient; right; not wrong.

Amongst a man's peers a man shall be sure of familiarity, and therefore it is *good* a little to keep state: amongst a man's inferiors one shall be sure of reverence, and therefore it is *good* a little to be familiar. *Bacon.*

If you think *good*, give Martius leave. *Id.*

It was a *good* time to comply with the importunity of the gentlemen of Sussex. *Clarendon.*

For brevity is very *good*
When w' are, or are not understood. *Butler.*

Conducive to happiness.

It is not *good* that the man should be alone. *Gen.* ii. 18.

We may as well pretend to obtain the good which we want without God's assistance, as to know what is *good* for us without his direction. *Smalridge.*

Uncorrupted; undamaged.

He also bartered away plums, that would have rotted in a week, for nuts that would last *good* for his eating a whole year. *Locke.*

Wholesome; salubrious.

A man first builds a country seat,
Then finds the walls not *good* to eat. *Prior.*

Medicinal; salutary.

The water of Nilus is sweeter than other waters in taste, and it is excellent *good* for the stone and hypochondriack melancholy. *Bacon's Natural History.*

Pleasant to the taste.

Eat thou honey, because it is *good*; and the honeycomb, which is sweet. *Prov.* xxiv. 13.

Of herbs and plants some are *good* to eat raw; as lettuce, endive, and purslane. *Bacon's Natural History.*

Complete; full.

The Protestant subjects of the abbey make up a good third of its people. *Addison on Italy.*

Useful; valuable.

All quality, that is *good* for any thing, is originally founded upon merit. *Collier on Envy.*

We discipline betimes those other creatures we would make useful and *good* for somewhat. *Locke.*

Sound; not false; not fallacious.

He is resolved now to shew how slight the propositions were which Luther let go for *good*. *Atterbury.*

Legal; valid; rightly claimed or held.

According to military custom the place was *good*, and the lieutenant of the colonel's company might well pretend to the next vacant captainship in the same regiment. *Wotton.*

Confirmed; attested; valid.

Ha! am I sure she's wronged? Perhaps 'tis malice!
Slave, make it clear, make *good* your accusation. *Smith.*

With *as* preceding. It has a kind of negative or inverted sense; *as good as*, no better than.

Therefore sprang there even of one, and him *as good* as dead, so many as the stars of the sky in multitude. *Heb.* xi.

With *as* preceding. No worse.

He sharply reproved them as men of no courage, which, being many times *as good* as in possession of the victory, had most cowardly turned their backs upon their enemies. *Knolles.*

The master will be *as good* as his word, for his own business. *L'Estrange.*

Well qualified; not deficient.

If they had held their royalties by that title, either there must have been but one sovereign over them all, or else every father of a family had been *as good* a prince, and had *as good* a claim to royalty as these. *Locke.*

Skilful; ready; dextrous.

I make my way where-e'er I see my foe;
But you, my lord, are *good* at a retreat. *Dryden.*

Happy; prosperous.

Behold how *good* and how pleasant it is for brethren to dwell together in unity. *Psalms* cxxxiii. 1.

Many *good* morrows to my noble lord!
— *Good* morrow, Catesby, you are early stirring. *Shakspeare.*

Good e'en, neighbours;
Good e'en to you all, *good* e'en to you all. *Id.*

At my window bid *good* morrow. *Milton.*

Good morrow, Portius! let us once embrace. *Addison.*

And so *good* night to them—or if you will
Good morrow—for the cock had crown, and light
Began to clothe each Asiatic hill,
And the mosque crescents struggled into sight. *Byron.*

Honorable.

They cast to get themselves a name,
Regardless whether *good* or evil fame. *Milton.*

Silence, the knave's repute, the whore's *good* name,
The only honour of the wishing dame. *Pope.*

A young unmarried man with a *good* name
And fortune has an awkward part to play;
For *good* society is but a game. *Byron.*

Cheerful; gay. Joined with any words expressing temper of mind.

They may be of *good* comfort, and ever go cheerfully about their own affairs. 2 *Mac.* xi. 26.

Quietness improves into cheerfulness, enough to make me just so *good* humoured as to wish that world well. *Pope.*

Considerable; not small, though not very great.

A *good* while ago God made choice that the Gentiles by my mouth should hear the word. *Acts* xv. 7.

The plant, having a great stalk and top, doth prey upon the grass a *good* way about, by drawing the juice of the earth from it. *Bacon.*

Myrtle and pomegranate, if they be planted though a *good* space one from the other, will meet. *Peacham on Drawing.*

The king had provided a *good* fleet, and a body of three thousand foot to be embarked. *Clarendon.*

We may suppose a great many degrees of littleness and lightness in these earthy particles, so as many of them might float in the air a *good* while, like exhalations, before they fell down. *Burnet.*

They held a *good* share of civil and military employments during the whole time of the usurpation. *Swift.*

Elegant; decent; delicate: with *breeding*.

If the critick has published nothing but rules and observations in criticism, I then consider whether there be a propriety and elegance in his thoughts and words, clearness and delicacy in his remarks, wit and *good-breeding* in his raillery. *Addison's Guardian.*

Mankind have been forced to invent a kind of artificial humanity, which is what we express by the word *good-breeding*. *Addison.*

Those among them, who return into their several countries, are sure to be followed and imitated as the greatest patterns of wit and *good-breeding*. *Swift.*

A moderate knowledge in the little rules of *good-breeding*, gives a man some assurance, and makes him easy in all companies. *Budgell.*

Real; serious; not feigned.

Love not in *good* earnest, nor no farther in sport neither, than with safety of a pure blush thou mayest in honour come off again. *Shakspeare.*

Rich; of credit; able to fulfil engagements.

Antonio is a *good* man: my meaning, in saying that he is a *good* man, is to have you understand me that he is sufficient. *Shakspeare.*

Having moral qualities, such as are wished; virtuous; pious; religious; applied both to persons and actions. Not bad; not evil.

The woman hath wrought a *good* work upon me. *Matthew.*

All man's works are on me,
Good or not *good*, ingraft my merit, those
Shall perfect, and for these my death shall pay. *Milton.*

What reward
Awaits the *good*, the rest what punishment. *Id.*

The only son of light
In a dark age, against example *good*,
Against allurement. *Id.*

Such follow him, as shall be registered
Part *good*, part bad, of bad the larger scroll. *Id.*

Grant the bad what happiness they would,
One they must want, which is to pass for *good*. *Pope.*

Why drew Marseilles' *good* bishop purer breath,
When Nature sickened, and each gale was death? *Id.*

Such was Roscommon, not more learned than *good*,
With manners generous as his noble blood. *Id.*

No farther intercourse with heaven had he,
But left *good* works to men of low degree. *Harte.*

Kind; soft; benevolent.

Glory to God in the highest, and on earth peace and *good* will towards men. *Luke* ii. 14.

For a *good* man some would even dare to die. *Rom.* v. 7.

Without *good* nature man is but a better kind of vermin. *Bacon.*

Here we are loved and there we love,
Good nature now and passion strive
Which of the two should be above,
And laws unto the other give. *Suckling.*

'Tis no wonder if that which affords so little glory to God, hath no more *good* will for men. *Decay of Piety.*

When you shall see him, sir, to die for pity,
'Twere such a thing, 'twould so deceive the world,
'Twould make the people think you were *good* natured. *Denham.*

Matters being so turned in her, that where at first liking her manners did breed *good* will, now *good* will became the chief cause of liking her manners. *Sidney.*

Good sense and *good* nature are never separated, though the ignorant world has thought otherwise. *Dryden.*

Affability, mildness, tenderness, and a word which I would fain bring back to its original signification of virtue, I mean *good* nature, are of daily use. *Id.*

To teach him betimes to love and be *good* natured to others, is to lay early the true foundation of an honest man. *Locke.*

This doctrine of God's *good* will towards men, this command of men's proportionable *good* will to one another, is not this the very body and substance, this the very spirit and life of our Saviour's whole institution? *Sprat.*

How could you chide the young *good* natured prince,
And drive him from you with so stern an air. *Addison.*

It was his greatest pleasure to spread his healing wings over every place, and to make every one sensible of his *good* will to mankind. *Calamy.*

'Tis no wonder if that which affords so little glory to God, hath no more *good* will for men. *Decay of Piety.*

Favorable; loving.

But the men were very *good* unto us, and we were not hurt. 1 *Samuel* xxv. 15.

Truly God is *good* to Israel, even to such as are of a clean heart. *Psalms* lxxiii. 1.

You have *good* remembrance of us always, desiring greatly to see us, as we also to see you. 1 *Thessalonians* iii. 6.

This idea must necessarily be adequate, being referred to nothing else but itself, nor made by any other original but the *good* liking and will of him that first made this combination. *Locke.*

Companionable; sociable; merry. Often used ironically.

Though he did not draw the *good* fellows to him by drinking, yet he eat well. *Clarendon.*

Not being permitted to eat without drinking, will prevent the custom of having the cup often at his nose; a dangerous beginning and preparation to *good* fellowship. *Locke.*

It was well known, that Sir Roger had been a *good* fellow, in his youth. *Arbuthnot.*

It is sometimes used as an epithet of slight contempt, implying a kind of negative virtue, or bare freedom from ill.

My *good* man, as far from jealousy as I am from giving him cause. *Shakspeare. Merry Wives of Windsor.*

She had left the *good* man at home, and brought away her gallant. *Addison's Spectator.*

In a ludicrous sense.

As for all other *good* women that love to do but little work, how handsome it is to louse themselves in the sunshine, they that have been but a while in Ireland can well witness. *Spenser.*

Hearty; earnest; not dubious.

He, that saw the time fit for the delivery he intended, called unto us to follow him, which we both, bound by oath, and willing by *good* will, obeyed. *Sidney.*

The *good* will of the nation to the present war has been since but too much experienced by the successes that have attended it. *Temple.*

Good will, she said, my want of strength supplies; And diligence shall give what age denies. *Dryden.*

In good time. Not too fast.

In good time, replies another, you have heard them dispute against a vacuum in the schools. *Collier.*

In good sooth. Really; seriously.

What, must I hold a candle to my shames?
They in themselves, *good sooth*, are too too light. *Shakspeare.*

Good (to make). To keep; to maintain; not to give up; not to abandon.

There died upon the place all the chieftains, all *making good* the fight without any ground given. *Bacon's Henry VII.*

He forced them to retire in spite of their dragoons, which were placed there to *make good* their retreat. *Clarendon.*

He without fear a dangerous war pursues;
As honour made him first the danger chuse,
So still he *makes* it *good* on virtue's score. *Dryden.*

Since we claim a proper interest above others in the pre-eminent rights of the household of faith, then, to *make good* that claim, we are obliged above others to conform to the proper manners and virtues that belong to this household. *Sprat.*

Good (to make). To confirm; to establish.

I farther will maintain
Upon his bad life to *make* all this *good*. *Shakspeare.*

To *make good* this explication of the article, it will be necessary to prove that the church, which our Saviour founded, and the apostles gathered, was to receive a constant and perpetual accession. *Pearson.*

These propositions I shall endeavour to *make good*. *Smalridge.*

Good (to make). To perform.

While she so far extends her grace,
She *makes* but *good* the promise of her face. *Waller.*

Good (to make). To supply.

Every distinct being has somewhat peculiar to itself, to *make good* in one circumstance what it wants in another. *L'Estrange.*

Good, *n. s.* That which physically contributes to happiness; benefit; advantage; the contrary to evil or misery.

I fear the emperor means no *good* to us. *Shakspeare.*

Let me play the lion too: I will roar, that I will do any man's heart *good* to hear me. *Id.*

He waved indifferently 'twixt them, doing neither *good* nor harm. *Id. Coriolanus.*

Nature in man's heart her laws doth pen,
Prescribing truth to wit, and *good* to will. *Davies.*

The lessening or escaping of evil is to be reckoned under the notion of *good:* the lessening or loss of *good* is to be reckoned under the notion of evil. *Wilkins.*

Love with fear the only God,
Merciful over all his works, with *good*
Still overcoming evil. *Milton.*

God is also in sleep, and dreams advise,
Which he hath sent propitious, some great *good*
Presaging. *Id.*

He when the wheel of empire whirleth back,
And though the world's disjointed axle crack,
Sings still of ancient rights and better times,
Seeks wretched *good*, arraigns successful times. *Marvell.*

This caution will have also this *good* in it, that it will put them upon considering, and teach them the necessity of examining more than they do. *Locke.*

Good is what is apt to cause or increase pleasure, or diminish pain in us; or else to procure or preserve us in the possession of any other *good*, in absence of any evil. *Id.*

Refuse to leave thy destined charge too soon,
And for the church's *good* defer thy own. *Prior.*

A thirst after truth, and a desire of *good*, are principles, which still act with a great and universal force. *Rogers.*

Works may have more wit than does them *good*,
As bodies perish through excess of blood. *Pope.*

Prosperity; advancement.

If he had employed
Those excellent gifts of fortune and of nature
Unto the *good*, not ruin of the state. *Ben Jonson.*

Earnest; not jest.

The *good* woman never died after this, 'till she came to die for *good* and all. *L'Estrange.*

Moral qualities, such as are desirable; virtue; righteousness; piety; the contrary to wickedness.

Depart from evil, and do *good*. *Psalms* xxxiv. 14.

If a man be *good*, or doth or sayth a thing to *goode* entente, the backbiter wol turne all that *goodnesse* up so down to his shrewde entente. *Chaucer. The Persones Tale.*

Not only carnal *good* from evil does not justify; but no *good*, no not a purposed *good*, can make evil *good*. *Holyday.*

O sons, like one of us is Man become,
To know both *good* and evil, since his taste
Of that defended fruit; but let him boast
His knowledge of *good* lost, and evil got;
Happier had it sufficed him to have known
Good by itself, and evil not at all. *Milton.*

Empty of all *good*, wherein consists
Woman's domestick honour, and chief praise. *Id.*

By *good*, I question not but *good*, morally so called bonum honestum, ought, chiefly at least, to be understood; and that the *good* of profit or pleasure, the bonum utile, or jucundum, hardly come into any account here. *South.*

Nor holds this earth a more deserving knight
For virtue, valour, and for noble blood,
Truth, honour, all that is comprized in *good*. *Dryden.*

Good placed after *had*, with *as*, seems a substantive; but the expression is, I think, vicious; and *good* is rather an adjective elliptically used, or it may be considered as adverbial. See Good, *adv.*

Without *good* nature and gratitude, men had *as good* live in a wilderness as in a society. *L'Estrange.*

The pilot must intend some port before he steers his course, or he had *as good* leave his vessel to the direction of the winds, and the government of the waves. *South.*

Good, *adv.* Well; not ill; not amiss.

As good. No worse.

Was I to have never parted from thy side,
As good have grown there still a lifeles rib. *Milton.*

Says the cuckow to the hawk, Had you not *as good* have been eating worms now as pigeons? *L'Estrange.*

Good, *interj.* Well! right! It is sometimes used ironically.

GOODALL (Walter), a learned Scottish antiquary and philologist, born in 1689. He was many years keeper of the Advocates' Library, which gave him an opportunity of examining the original papers, and authentic documents, preserved among the records of that learned faculty, which he did not fail to improve. Being a zealous friend to the exiled royal house of Stuart, he was anxious to rescue the character of Mary, queen of Scots, from the calumnies that had been thrown upon it for nearly two centuries; and accordingly, after much deep investigation,

published a vindication of that princess, which very much attracted the public attention, and exhibits equal proofs of his learning and industry in literary researches. He wrote several other pieces, and died at Edinburgh in 1751, in the seventy-second year of his age.

Good Behaviour, in law, a proper carriage and behaviour to the king and the people. A justice of the peace may, at the request of another, or where he himself sees cause, demand surety for the good behaviour; and to that end the jus ice may issue out his warrant against any persons whatsoever, under the degree of nobility; but, when it is a nobleman, complaint is to be made in the court of chancery, or king's bench, where such nobleman may be bound to keep the peace. Infants and femes coverts, who ought to find surety by their friends, may be bound over to their good behaviour; also lunatics, who have sometimes lucid intervals, and all others who break the peace, or are suspected to do it, by affrays, assaults, battery, wounding, fighting, quarrelling, threatening, &c. Persons may be likewise bound to good behaviour for a scandalous way of living, keeping bawdy-houses, gaming-houses, &c.; and so may common drunkards, whores, cheats, libellers, &c. He who demands surety for the peace, on any violence offered, must take an oath before the justice, that he goes in fear of his life, or some bodily harm, &c., and that it is not out of malice, but from a regard to his own safety.

Good-conditioned, *adj.* Without ill qualities or symptoms. Used both of things and persons, but not elegantly.

No surgeon dilates an abscess of any kind by injections, when the pus is *good-conditioned*. *Sharp.*

Goo'dliness, *n. s.* From goodly. Beauty; grace; elegance.

The stateliness of houses, the *goodliness* of trees, when we behold them, delighteth the eye. *Hooker.*

She sung this song with a voice no less beautiful to his ears, than her *goodliness* was full of harmony to his eyes. *Sidney.*

Goo'dly, *adj.* From good. Beautiful; graceful; fine; splendid. Now little in use.

Rebecca took *goodly* raiment of her eldest son Esau, and put them upon Jacob. *Genesis* xxvii. 15.

There was not among the children of Israel a *goodlier* person than he. 1 *Sam.* ix. 2.

That castle was most *goodly* edifyde
And plaste for pleasure nigh that forrest syde.
Spenser. Faerie Queene.

He had not made them any recompence for their *goodly* houses and olive gardens, destroyed in the former wars. *Knolles.*

A *goodly* city is this Antium. *Shakspeare. Coriolanus.*

Patience and sorrow strove
Which should express her *goodliest*: you have seen
Sunshine and rain at once. Her smiles and tears
Were like a wetter May. *Id. King Lear.*

Here from gracious England have I offer
Of *goodly* thousands. *Id. Macbeth.*

Both younger then they were; of stature more;
And all their formes, much *goodlier* than before.
Chapman.

The *goodliest* man of men since born
His sons, the fairest of her daughters Eve. *Milton.*

A prince of a *goodly* aspect, and the more *goodly* by a grave majesty, wherewith his mind did deck his outward graces. *Sidney.*

Of the fourth Edward was his noble song;
Fierce, *goodly*, valiant, beautiful and young.
Waller.

Not long since walking in the field,
My nurse and I we there beheld
A *goodly* fruit, which, tempting me,
I would have plucked. *Id.*

How full of ornament is all I view
In all its parts! and seems as beautiful as new:
O *goodly* ordered work! O power divine!
Of thee I am, and what I am is thine! *Dryden.*

His eldest born, a *goodly* youth to view,
Excelled the rest in shape and outward shew;
Fair, tall, his limbs, with due proportion joined,
But of a heavy, dull, degenerate mind *Id.*

Bulky; swelling; affectedly turgid.

Round as a globe, and liquored every chink,
Goodly and great he sails behind his link. *Dryden.*

Happy; desirable; gay.

England was a peaceable kingdom, and but lately inured to the mild and *goodly* government of the Confessor. *Spenser.*

We have many *goodly* days to see. *Shakspeare.*

What fruits of fragrance blush on every tree,
What *goodly* prospects o'er the hills expand.
Byron.

Goo'dly, *adv.* Excellently. Obsolete.

There Alma, like a virgin queen most bright,
Doth flourish in all beauty excellent;
And to her guests doth bounteous banquet dight,
Attempered *goodly* well for health and for delight.
Spenser.

Goo'dlyhood, *n. s.* From goodly. Grace; goodness. Obsolete.

I praie Love of his *godlihede*
To Bialacoil doe gentilnesse
For whom I live in soche distresse.
Chaucer. Romaunt of the Rose.

But mote thy *goodlihood* forgive it me,
To meet which of the gods I shall thee name.
Spenser.

Goo'dman, *n. s.* From good and man. A slight appellation of civility; generally ironical.

How now, what's the matter? part——
—With you, *goodman* boy, if you please.
Come, I'll flesh ye. *Shakspeare. King Lear.*

A rustic term of compliment; gaffer.

Nay, hear you, *goodman* delver.
Shakspeare. Hamlet.

But see the sun-beams bright to labour warn,
And gild the thatch of *goodman* Hodge's barn. *Gay.*

Old *goodman* Dobson of the green,
Remembers he the trees has seen. *Swift.*

Goo'dness, *n. s.* From good. Desirable qualities either moral or physical; kindness; favor.

Than cometh magnificence, that is to say,
When a man doth and performeth gret werkes
Of *goodnesse*, that he hath begonne, and that
Is the end why that men shuld do *good* werkes:
For in the accomplishing of *good* werkes
Lieth the gret guerdon.
Chaucer. The Persones Tale.

There is in all things an appetite or desire, whereby they incline to something which they may be; all which perfections are contained under the general name of *goodness*. *Hooker.*

There is a general, or natural *goodness* in creatures, and a more special or moral *goodness*. *Perkins.*

All *goodness*
Is poison to thy stomach,
—Yes, that *goodness*
Of gleaning all the land's wealth into one,
Into your own hands, cardinal, by extortion:

The *goodness* of your intercepted packets
You writ to the pope against the king; your *goodness*,
Since you provoke me, shall be most notorious.
Shakspeare.

There's no *goodness* in thy face. *Id.*

All made very particular relations of the strength of the Scots army, the excellent discipline that was observed in it, and the *goodness* of the men.
Clarendon.

If for any thing he loved greatness, it was because therein he might exercise his *goodness*. *Sidney.*

The *goodness* of every thing is measured by its end and use, and that's the best thing which serves the best end and purpose. *Tillotson.*

Nobody can say, that tobacco of the same *goodness* is risen in respect of itself: one pound of the same *goodness* will never exchange for a pound and a quarter of the same *goodness*. *Locke.*

Good-now. *Interjection.* In good time; a la bonne heure. A gentle exclamation of intreaty. It is now a low word.

Good-now, sit down, and tell me, he that knows,
Why this same watch? *Shakspeare. Hamlet.*

A soft exclamation of wonder.

Good-now, *Good-now*, how your devotions jump with mine! *Dryden.*

Goods, *n. s.* From good. Moveables in a house. Chaucer seems to use the singular in this sense.

————I in fewe yeres
Have spended upon divers maner freires
Ful many a pound, yet fare I never the bet;
Certain my *good* have I almost beset:
Farewel my *good*, for it is al ago.
Chaucer. The Sompnoures Tale.

That giv'st to such a guest
As my poor selfe, of all thy *goods* the best.
Chapman.

Personal or moveable estate.

This hinders nothing the procedures of the civil courts, which respect the temporal punishment upon body and *goods*. *Lesley.*

That a writ be sued against you,
To forfeit all your *goods*, lands, tenements,
Castles and whatsoever. *Shakspeare. Henry VIII.*

Wares; freight; merchandise.

Her majesty, when the *goods* of our English merchants were attached by the duke of Alva, arrested likewise the *goods* of the low Dutch here in England.
Raleigh's Essays.

Salee, that scorned all power and laws of men,
Goods with their owners hurrying to their den.
Waller.

GOODWIN Sands, or Godwin Sands, famous sand-banks off the coast of Kent, lying between the North and South Foreland. As they run parallel with the coast for three leagues together, at about two leagues and a half distant from it, they add to the security of that capacious road, the Downs: for, while the land shelters ships with the wind from south-west to north-west only, these sands break all the force of the sea when the wind is at E.S.E. The most dangerous wind, when blowing hard on the Downs, is the S.S.W. These sands occupy the space that was formerly a large tract of low ground, belonging to Godwyn, earl of Kent, father of king Harold II.; and which being afterwards given to the monastery of St. Augustin, at Canterbury, the abbot neglecting to keep in repair the wall that defended it from the sea, the whole tract was drowned, A.D. 1100, leaving these sands, upon which so many ships have since been wrecked. These sands lie east of the Downs four miles and a half from South Foreland.

Goo'dy, *n. s.* Corrupted from good wife. A low term of civility used to mean persons.

Soft, *goody* sheep, then said the fox, not so;
Unto the king so rash you may not go. *Hubbert.*

Swarmed on a rotten stick the bees I spyed,
Which erst I saw when *goody* Dobson died. *Gay.*

Plain *goody* would no longer down;
'Twas madam in her grogram gown. *Swift.*

Goo'dyship, *n. s.* From goody. The quality of goody. Ludicrous.

The more shame for her *goodyship*,
To give so near a friend the slip. *Hudibras.*

GOOLGUNGE, a town of the district of Bundelcund, Hindostan, near which is a pass in the mountains called Goomaghaut. Long. 85° 38 E., lat. 24° 26′ N.

GOOLPUSSERA, a town of the province of Nepaul, Hindostan, on the road between the cities of Patna and Nepaul. Near it is an extensive forest of fine saul timber, next in value to the teak. Long. 85° 10′ E., lat. 27° 1′ N.

GOOMAH, a town of Hindostan, in Bahar, situated at the junction of three roads. It formerly had a fort, which commanded a pass through the mountains leading into Bengal. Long. 85° 20′ E., lat. 24° 24′ N.

GOOMSUR, a town and small district of Hindostan, at the north-west extremity of the Northern Circars, surrounded by a forest of bamboos, through which it is excessively difficult to pass. Long. 84° 55′ E., lat. 19° 53′ N.

GOOMTY, a river of Hindostan, which rises in the mountains of Kemaon, whence it flows in a south-east direction through Oude, and after passing the cities of Lucknow, Sultanpore, and Joanpore, falls into the Ganges, about fourteen miles below Benares. It is navigable at all times for boats as high as Lucknow.

GOONDUL, a southern district of the province of Mysore, India. It possesses the strong fort called Hengul.

GOONEE, a river of Hindostan, province of Sinde, which, rising in the hills of Poollejar, unites with the Loonee, or salt river, and the Indus, and forms a large island called Majur. During the rainy season it is navigable for boats from Mondavic to Hyderabad.

GOOR, a range of lofty mountains in Persia, dividing Khorassan from Cabul.

GOORACKPOOR, a district in the province of Oude, Hindostan, situated to the north of the Goggrah, or Dewah River, between the twenty-sixth and twenty-eighth degrees of northern latitude. It was ceded in 1801 by the nabob of Oude to the British; and abounds with fine timber. Marquis Hastings assigned a portion of it to the Pindarie chiefs. It is situated to the north of Bengal, and well watered by various streams.

Goorackpoor, the capital of the above district, is situated on the eastern bank of the Boora Rapty, which is navigable for boats at all seasons. It formerly had a brick citadel, is the residence of the civil establishment of the district, and has

a cantonment for a battalion of native infantry, &c. Long. 83° 22′ E., lat. 26° 45′ N.

GOOSE, *n. s.* / GOOSE'BERRY, *n. s.* / GOOSE'CAP, *n. s.* / GOOSE'FOOT, *n. s.* / GOOSE'GRASS, *n. s.* } Sax. ȝoȝ, Belg. *goes*; Erse. *gawe*, sing, *gewry*, plural; Welch, *guyz*. A large water fowl proverbially noted, we know not why, for foolishness: a foolish person: wild orach, an herb so called: a tailor's smoothing iron. Gooseberry, goose and berry, because eaten with young geese as sauce. A berry and tree.

This miller to the toun his daughter send
For ale and bred; and rosted hem a *goos*;
And bond hir hors he should no more go loos.
Chaucer. The Reves Tale.

Thou cream-faced lown,
Where got'st thou that *goose* look?
Shakspeare. Macbeth.

Since I pluckt *geese*, played truant, and whipt top, I knew not what 'twas to be beaten till lately.
Shakspeare.

Come in, tailor: here you may roast your *goose*.
Id.

August has upon his arm a basket of all manner of ripe fruits; as pears, plums, apples, *gooseberries*.
Peacham.

Birds most easy to be drawn are water-fowl; as the *goose* and swan. *Peacham on Drawing.*

Rather than fail they will decry
That which they love most tenderly;
Quarrel with minced-pies, and disparage
Their best and dearest friend plum-porridge:
Fat pig and *goose* itself oppose,
And blaspheme custard through the nose.
Hudibras.

Nor watchful dogs, nor the more wakeful *geese*, Disturb with nightly noise the sacred peace. *Dryden.*

Goosegrass, or wild tansy, is a weed that strong clays are very subject to. *Mortimer.*

Upon a *gooseberry* bush a snail I found;
For always snails near sweetest fruit abound. *Gay.*

While man exclaims, 'See all things for my use', 'See man for mine!' replies a pampered *goose*. *Pope.*

'The royal game of *goose*,' as I may say,
Where every body has some separate aim,
An end to answer, or a plan to lay. *Byron.*

GOOSEBERRY, in botany. See RIBES.

GOOSEFOOT. See CHENOPODIUM.

GOOSEGRASS. See GALIUM.

GOOSE ISLAND, an island of the river St. Lawrence, about twelve miles below Orleans. It is connected with Crane Island by a marsh, and they together about twelve miles long; and inhabited by about forty families. They produce wheat, and have fine pasturage.

GOOSE ISLAND, an island in Christmas Sound, on the south coast of the island of Terra del Fuego, so named by captain Cook.

GOOSE ISLAND, another small island lying off the south of New Holland.

GORBELLY, *n. s.* / GORBELLIED, *adj.* } From Sax. ȝoȝ, dung, and belly, according to Skinner and Junius. It may perhaps come from Welsh, *gor*, beyond; too much; or, as seems to me more likely, may be contracted from gormand, or gorman's belly, the belly of a glutton. —Dr. Johnson. A big paunch; a swelling belly. A term of reproach for a fat man.

Hang ye, *gorbellied* knaves, are you undone?
No, ye fat chuffs, I would your store were here.
Shakspeare.

GORCAH, GHURKA. A town and district of northern Hindostan, the original country of the present Nepaul sovereigns, situated between the twenty-eighth and twenty-ninth degrees of north latitude. The Trisoolgunga once separated the territories of the Ghoorkali and Newar (or Nepaul) princes, the western limit of the Ghoorka district, being marked by the Mursiangdi. This territory, besides a numerous peasantry, contains several Rajpoot families, and some Newars, but, according to Mr. Hamilton, it is principally occupied by the Brahminical and Khetri tribes; and as these constituted the principal strength of Purthi Narrain's government, and continue to form the main support of the present one, they possess considerable authority. Their chiefs are known by the name of thurgurs, from whom are selected the leading conductors of affairs. Their numbers are thirty-six, the title properly descending only to the heads of families, and these thirty-six are subdivided into three other gradations. 'The Ghoorkhali reigning family pretend to derive their descent from the Rajpoot princes of Odeypoor, in the same manner as the Sevajee family claimed a similar origin. For a considerable period they have existed in the mountainous country bordering on the river Gunduck, during which time they have gradually risen into power by successive encroachments on their neighbours. After the conquest of Nepaul by the Ghoorkhalies, in 1768, the seat of government was transferred to Catmandoo, and the city of Gorcah, having since been much neglected, is greatly decayed.'

Near Gorcah is said to be a very considerable mass of rock crystal.

GORD, *n. s.* An instrument of gaming, as appears from Beaumont and Fletcher.—Warburton.

Thy dry bones can reach at nothing now, but *gord* and ninepins. *Beaumont and Fletcher.*

Let vultures gripe thy guts; for *gords* and Fulham holds. *Shakspeare.*

GORDIAN KNOT, in antiquity, a knot made by K. Gordius, in one of the cords of his yoke, or, as some have it, in the leathers of his chariot harness; which was so very intricately twisted, that it was impossible to discover where it began or ended. The oracle of Apollo having declared, that whoever should untie this knot should be master of all Asia, many attempted it, but without success; till at last Alexander the Great, after likewise attempting in vain to untie it, cut it asunder with his sword, and thus either eluded or fulfilled the prediction. See GORDIUS.

GORDIANUS I. (Mæcius Antonius), a Roman general, for his virtues chosen emperor by the army in the reign of Maximinus, A. D. 236. He was descended on the father's side from the Gracchi, and on the mother's from Trajan. He had been twice consul, and was proconsul of Africa when chosen emperor; but his son being slain by Capellian, the governor of Mauritania, he killed himself in his eightieth year. See ROME. He had collected into his library 62,000 books.

GORDIANUS II. (Mæcius Antonius), surnamed Africanus, the son of the preceding, by Annia Orestille, the grand-daughter of the emperor Marcus Antoninus, was made consul by the em-

peror Alexander, and afterwards associated with his father in the empire, but slain in fighting against the partisans of Maximinus, A. D. 237.

GORDIUM, a city of Phrygia Major, where Alexander the Great cut the Gordian knot.

GORDIUS, in fabulous history, a poor husbandman who had two yokes of oxen, wherewith he ploughed his land and drew his wain. An eagle sitting a long while upon one of his oxen, he consulted the soothsayers; a virgin bad him sacrifice to Jupiter in the capacity of king. He married the virgin, who bore to him Midas. The Phrygians, instructed by the oracle to set the first person they met in a wain upon the throne, met Gordius, and made him king. Midas, for this good fortune, dedicated to Jupiter his father's cart; and Gordius hung up the knot of the yoke in the temple. See GORDIAN KNOT.

GORDIUS, in zoology, the hair worm, a genus of animals belonging to the class of vermes and order of intestina. There are several species:

G. aquaticus, the water hair-worm, is ten or twelve inches in length, and of about the thickness of a horse hair; its skin is smooth and glossy; its color pale yellowish-white all over, except the head and tail, which are black. The body is rounded, and very slender in proportion to its length: the mouth is small, and placed horizontally; the jaws are of equal length, and obtuse at their extremities. This species is common in our fresh waters, especially in clay, through which it passes as a fish does through the water.

G. argillaceus, or clay hair-worm, only differs from the preceding in color, being yellowish at the extremities, and in being chiefly found in clay.

G. marinus, the sea hair-worm, is filiform, twisted spirally, and lying flat, about half an inch in length; of a whitish color, smooth, and scarcely diminishing at the head. It infests herrings, bleaks, and various other fish.

G. medinensis, the muscular hair-worm, is all over of a pale yellowish color.

GORDON (Alexander), M. A., an eminent Scottish antiquary, was secretary to the Society for Encouragement of Learning. He succeeded Dr. Stukely as secretary to the Antiquarian Society, which office he resigned in 1741 to Mr. Joseph Ames. He went to Carolina with governor Glen, where, besides a grant of land, he held several offices, and died a justice of the peace, leaving a handsome estate to his family. He published, 1. Itinerarium Septentrionale, or a Journey through most of the Counties of Scotland, in two parts, with sixty-six copper-plates, 1726, folio. 2. Supplement to the Itinerarium, 1732, folio. 3. The Lives of Pope Alexander VI. and his son Cæsar Borgia. 4. A complete History of the Ancient Amphitheatres, 1730, 8vo. afterwards enlarged in a second edition. 5. An Essay towards Explaining the Hieroglyphical figures on the Coffin of the ancient Mummy belonging to captain William Lethieuller, 1737, folio, with cuts. 6. Twenty-five plates of all the Egyptian Mummies and other Egyptian Antiquities in England, 1739, folio.

GORDON (hon. George), or lord George Gordon, was born in London, in 1750. He early entered into the navy, but quitted it during the American war, in consequence of an altercation with earl Sandwich. He was elected M. P. for Ludgershall, Wilts, in 1774; and during several sessions animadverted, with great freedom and humor, on the speeches and proceedings of both ministry and opposition. An alarm having been excited by the repeal of certain penal statutes against the Roman Catholics, in 1779, lord George was chosen president of the Protestant association at London; and, on the 2d of June 1780, went to the house of commons, to present their petition against that rescissory act, attended by 60,000 of the petitioners. The dreadful consequences of this imprudent measure are related under the article GREAT BRITAIN. Lord George was imprisoned in the Tower, on the 9th June 1780; and tried for high treason, but acquitted on the 4th February, 1781; on which occasion there was a very general illumination in Scotland, and £485 were subscribed to reimburse him for the expenses of his trial. On the 4th of May, 1786, he was excommunicated by the archbishop of Canterbury, for not appearing in court as a witness in a cause. In February and June, 1787, he was tried before the court of King's Bench, for publishing libels on the queen of France, the French ambassador, and the empress of Russia; and also for a seditious pamphlet entitled, A petition to Lord G. Gordon from the Prisoners in Newgate, praying that he would secure their liberties, by preventing them from being sent to Botany Bay; which petition, upon trial, was proved to have been written by himself. Being convicted of these charges, he, on the 25th June, went over to Holland, where he turned Jew, and was circumcised; but, returning to England in August, he was apprehended on the 7th December, at Birmingham; and on the 28th January, 1788, was sentenced to imprisonment for five years, and to continue in jail till he should find bail for his good behaviour, in £10,000. Not being able to find bail at the end of that period to the extent required, this operated as a sentence of imprisonment for life. In July, 1789, he presented a petition to the National Assembly of France, and was visited by several eminent revolutionists. He died 1st November, 1793, of a fever, attended with delirium, in the forty-third year of his age. As an author, his publications, political and miscellaneous, abounded with humor, and were not destitute of argument; as a public speaker, his language was animated, and his diction classical. Of his eccentricities we shall say nothing; but his conversion from Christianity—from one of the strictest sects of Presbyterian seceders, to Judaism, was so very strange a measure, that (if indeed it was real), it can be accounted for only upon one supposition.

GORDON (Thomas), a Scotch author, born at Kirkcudbright, famous for his translations and political writings. He came young to London; where he supported himself by teaching languages, until he procured employment under the earl of Oxford in queen Anne's time. He first distinguished himself in the defence of Dr. Hoadley in the Bangorian controversy; which recommended him to Mr. Trenchard, in conjunction with whom he wrote the well known

Cato's Letters, upon a variety of important public subjects. These were followed by a periodical paper, under the title of the Independent Whig; which was continued some years after Mr. Trenchard's death, by Gordon alone, against the hierarchy of the church: but with more acrimony than was shown in Cato's Letters. At length Sir Robert Walpole retained him to defend his administration, to which end he wrote several pamphlets. At the time of his death, in 1750, he was first commissioner of the wine licenses, an office which he had enjoyed many years. He published English translations of Sallust and Tacitus, with additional discourses to each author, which contain much useful matter. Two of his tracts, entitled 1. A Cordial for Low-spirits, in 3 vols; and, 2, The Pillars of Priestcraft and Orthodoxy shaken; in 2 vols. 8vo., were published after his death.

GORDONIA, in botany, a genus of the polyandria order, and monadelphia class of plants: CAL. simple style, five cornered, stigma quinquefied: CAPS. quinquelocular: SEEDS two-fold with a leafy wing. Species four, the principal is G. lasianthus. A tall and very straight tree, with a regular pyramidal head. Its leaves are shaped like those of the common bay, but serrated. It blossoms in May, June, and July. The flowers grow on foot-stalks about five inches long, are monopetalous, and are succeeded by conic capsules with a divided calyx. The stamina are headed with yellow apices. This tree retains its leaves all the year, and grows only in wet places, and usually in water.

GORE, *n. s.* & *v. a.* } Sax. ȝore; Welsh,
GORY, *adj.* } *gor*. Effused and congealed blood. The verb signifies to stab, or pierce, especially, as cattle, with a horn. The adjective, used figuratively also as bloody, murderous, fatal, is now obsolete.

That all the ground with purple bloud was spent;
And all their armours stayned with bloudie *gore*.
Spenser. Faerie Queene.

A griesly wound,
From which forth gushed a stream of *gore* blood thick,
That all her goodly garment stained around,
And into a deep sanguine dyed the grassy ground.
Spenser.

When two boars with rankling malice met,
Their *gory* sides the fresh wounds fiercely fret. *Id.*

Oh, let no noble eye prophane a tear
For me, if I be *gored* with Mowbray's spear.
Shakspeare.

His horrid beard and knotted tresses stood
Stiff with his *gore*, and all his wounds ran blood.
Denham.

The bloody fact
Will be avenged; though here thou see him die,
Rolling in dust and *gore*. *Milton's Paradise Lost.*

Some tossed, some *gored*, some trampling down he killed. *Dryden.*

Another's crimes the youth unhappy bore,
Glutting his father's eyes with guiltless *gore*. *Id.*

He idly butting, feigns
His rival *gored* in every knotty trunk.
Thomson. Spring.

The first born man still in his mind he bore,
Foully arrayed in guiltless brother's *gore*,
Which for revenge to Heaven, from Earth did loudly roar. *Fletcher. Purple Island.*

Then plunged; the rock below received like glass;
His body crashed into one *gory* mass,
With scarce a shred to tell of human form,
Or fragment for the sea-bird or the worm. *Byron.*

GORE (Thomas), a writer on heraldry, was born at Alderton in Wiltshire, and educated at Magdalen College, Oxford. He first entered at Lincoln's Inn, but soon after retired to his patrimony at Alderton. He was appointed, in 1680, high sheriff of Wiltshire, and wrote Loyalty displayed, and Falsehood unmasked, as a defence of his character in that office. He was the author of A Table showing how to blazon a Coat ten several ways, 1655; Series Alphabetica Latino-Anglica, Nomina Gentilitiorum, sive cognominum plurimarum familiarum, quæ multos per annos in Anglia floruere, 1667; Catalogus in certa capita, seu classes, alphabetico ordine concinnatus; plerorumque omnium Authorum tam antiquorum quam recentiorum qui de re Heraldica, Latinè, Gallice, Ital. Hisp. scripserunt, Nomenclator Geographicus. He died at Alderton in 1684.

GORE'S ISLAND, an island of the North Pacific, so named by captain Cook in 1778. It is about thirty miles in length, consisting of two hills connected by a low neck of land, in Long. 172° 30′ W., lat. 60° 40′ N.

GOREE, an island and town of South Holland, being the first land usually made by vessels bound to Rotterdam. The island is ten miles in circumference, and was once called West Voorn.

GOREE, a small island, off the coast of Africa, about a mile from the southern shore of Cape Verd. Its importance is solely derived from its inaccessible situation. The first European power which occupied it was the Dutch, who, in 1617, concluded a treaty of cession with Birar, king of Cape Verd. It was taken in 1663 by the English admiral Holmes, but retaken two years after by De Ruyter. In 1677 a French squadron, commanded by the count d'Estrées forced it to surrender: and by the treaty of Nimeguen it was ceded to France.

Goree is divided into three parts. One consists of the rock which forms a naked mass of black basalt, rising on all sides to the height of 300 feet. On the summit is a plain 130 fathoms in length and seventy in breadth. The western side is perpendicular from top to bottom, and physically inaccessible; the eastern and southern sides are very steep, but it cannot be considered quite impossible to scale them. The northern side is the most accessible; and here a mound has been formed, fifteen feet in width, and with a proper slope for conveying heavy artillery up to the plain. On the top is fort St. Michael, originally built by the Dutch, and considered by Golheny as having no strength except what it derives from its situation. On a sandy plain, at the foot of the rock, is the town of Goree, supposed to contain about 5000 inhabitants. It is the entrepôt for the French trade with the opposite coast of Africa. The third part of the island is the north point, which forms a kind of natural mole 120 fathoms long by thirty broad; it is commanded by a fort called St. François. Such is the French account of this place.

GORGE, *n. s.* & *v. n.* } Fr. *gorge, gorger;*
GOR'GED, *adj.* } Ital. *gorger*, of Lat.
GOR'GET, *n. s.* } *gurgulio.* The throat; the food swallowed: to swallow, or fill up the throat: figuratively to satiate. Gorget is a piece of armour used to defend the throat.

And all the way, most like a brutish beast,
He spewed up his *gorge*, that all did him detest.
Spenser.

There were birds also made so finely, that they did not only deceive the sight with their figures, but the hearing with their songs, which the watery instruments did make their *gorge* deliver. *Sidney.*

And now how abhorred in my imagination it is! my *gorge* rises at it. *Shakspeare. Hamlet.*

Her delicate tenderness will find itself abused, begin to heave the *gorge*, disrelish and abhor the Moor.
Id. Othello.

He that makes his generation messes,
To *gorge* his appetite. *Id. King Lear.*

He with a palsy fumbling on his *gorget*,
Shakes in and out the rivet.
Id. Troilus and Cressida.

Being with his presence glutted, *gorged*, and full.
Shakspeare.

Look up a height, the shrill *gorged* lark so far
Cannot be seen or heard. *Id.*

See how his *gorget* peers above his gown,
To tell the people in what danger he was.
Ben Jonson.

About his neck a threefold *gorget*,
As rough as treble leathern target. *Hudibras.*

Gorge with my blood, thy barbarous appetite.
Dryden.

He did oftentimes spend the night in the church loone praying, his headpiece, *gorget*, and gauntlets lying by him. *Knolles.*

I desire that they will not *gorge* the lion either with nonsense or obscenity. *Addison.*

GORGE, in architecture, the narrowest part of the Tuscan and Doric capitals, lying between the astragal, above the shaft of the pillar, and the annulets.

GORGE, in fortification, the entrance of the platform of any work. See FORTIFICATION.

GOR'GEOUS, *adj.* } Old Fr. *gorgias;* Ital.
GOR'GEOUSLY, *adv.* } *gioire*, of Lat. *gaudere.*
GOR'GEOUSNESS, *n. s.* } Fine; splendid; showy; glittering in various colors; applied generally to attire or dress.

The cloud-capped towers, the *gorgeous* palaces,
The solemn temples, the great globe itself,
Yea, all which it inherits, shall dissolve;
And like this insubstantial pageant faded,
Leave not a wreck behind. *Shakspeare.*

O, that deceit should dwell
In such a *gorgeous* palace!
Id. Romeo and Juliet.

As full of spirits as the month of May,
And *gorgeous* as the sun at Midsummer.
Shakspeare.

He had them look upon themselves, and upon their enemies, themselves dreadful, their enemies *gorgeous* and brave. *Hayward.*

The duke, one solemn day, *gorgeously* clad in a suit all over spread with diamonds, lost one of them of good value. *Wotton.*

The *gorgeous* East, with richest hand,
Pours on her kings barbaric pearl and gold.
Milton.

With *gorgeous* wings, the marks of sovereign sway,
The two contending princes make their way
Dryden

On's shield a tomb, where death had dressed his bed,
With curious art, and crowned his loatnsome head
With gold, and gems:—his word, more *gorgeous* when dead. *Fletcher's Purple Island.*

GORGET, is a kind of breast-plate like a half moon, with the arms of the prince thereon; worn by the officers of foot. They are either gilt or silver, according to the color of the buttons on the uniforms.

GORGET, or GORGERET, in surgery, the concave or cannulated conductor, used in lithotomy. See SURGERY and LITHOTOMY.

GORGIAS, a celebrated orator of Sicily, born at Leontium, about A. A. C. 417. According to Quintilian, he was the first extemporaneous speaker. But this is not credible; men must have spoken extempore, before they studied speeches. A statue of gold was erected to him at Delphi.

GO'RGON, *n. s.* Gr. γοργω. A monster with snaky hairs, of which the sight turned the beholders to stone; any thing ugly or horrid.

Gorgons and hydras, and chymeras dire.
Milton.

Why did'st thou not encounter man for man,
And try the virtue of that *gorgon* face
To stare me into stature? *Dryden.*

The GORGONS, in antiquity and mythology, were three sisters, whose names were Stheno, Eurvale, and Medusa; the latter of whom was mortal, but the two former were subject neither to age nor death. They are described with wings on their shoulders, with serpents round their heads, their hands were of brass, and their teeth of a prodigious size, so that they were objects of terror to mankind. Pausanias says, the Gorgons were the daughters of Phorbus, or Phorcys; after whose death Medusa, his daughter, reigned over the Libyans dwelling near the lake Tritonidis. The queen, being fond of hunting and war, laid the neighbouring coutries quite waste. At last Perseus, having made war on them, and killed the queen, when he came to take a view of the field of battle, he found the queen's corpse so extremely beautiful, that he ordered her head to be cut off, and carried it with him to show the Greeks, who could not behold it without astonishment. Others represent them as a kind of monstrous women, covered with hair, who lived in woods and forests. Others, again, make them animals, resembling wild sheep, whose eyes had a poisonous and fatal influence.

GORGONIA, in natural history, a genus of zoophytes, formerly called ceratophyta, and in English named sea-fans, sea-feathers, and sea-whips. Linnæus and Pallas consider them as of a mixed nature in their growth, between animals and vegetables; but, Ellis shows them to be true animals of the polype kind, growing up in a branched form resembling a shrub, and in no part vegetable. They differ from the fresh water polype in many of their qualities, and particularly in producing from their own substance a hard and solid support, serving many of the purposes of the bone in other animals.

The surface of the gorgonia is composed of a kind of scales, so well adapted to each other as to serve for defence from external injuries: and the flesh, or, as some have called it, the bark or cortex, consists of proper muscles and tendons for extending the openings of their cells; for sending forth thence their polype suckers in search of food; and for drawing them in suddenly, and contracting the sphincter muscles of their starry cells, in order to secure these tender parts from danger; and also of proper secretory ducts, to furnish and deposit the osseous matter that forms the stem and branches as well as the base of the bone. Mr. Ellis affirms, that there are ovaries in these animals, and thinks it very probable that many of them are viviparous. See Zoophytes.

GORITZ, or Gorz, a province of the Austrian empire between Germany and Italy, bounded on the north-east and south by the duchy of Carniola, and on the west by the Venetian States. In 1817 it was constituted a circle of the new kingdom of Illyria, and contains 974 square miles, with 116,000 inhabitants. On the north side it extends among the Alps, and is bleak, but around the town of Goritz and throughout the south-west it is very warm, and produces vines and the fruits of Italy. This province came into the possession of Austria, so far back as the year 1500, on the decease of the last of the counts. The county of Gradiska was afterwards annexed to it, and the whole considered a part of Friuli. It was retained by Austria during the different changes of Buonaparte's reign, and received very considerable additions on Illyria being constituted a kingdom in 1817. It is divided into the three districts of Canale, Gradiska, and Goritz.

Goritz, or Gorizia, a town of the Austrian empire, the capital of the above province, stands on the Isonzo, and is divided into the upper and lower town. The former, situated on a mountain and defended by a castle, is an ancient place: the latter stands on a plain adjacent to the river. Its chief manufactures are of leather and silk. In 1751 an archbishop's see was erected here, but it was suppressed in 1782. In the beginning of 1797, Goritz was taken by the French. The castle and the adjoining eminences command beautiful prospects. Twenty miles N. N. W. of Trieste.

GORLÆUS (Abraham), an eminent antiquary, born at Antwerp, in 1540. He collected the rings and seals of the ancients, and published an account of a prodigious number of them, in 1601; under this title, Dactyliotheca; sive Annulorum Sigillarium, quorum apud priscos tam Græcos quam Romanos usus ex ferro, ære, argento, et auro, Promptuarium. This was the first part of the work: the second was entitled, Variarum Gemmarum, quibus antiquitas in signando uti solita, sculpturæ. In 1608 he published his collection of medals: which, however, if we may believe the Scaligerana, it is not safe always to trust. He resided at Delft, and died there in 1609.

GORLITZ, a town of the Prussian states, in Upper Lusatia. It is a well-built town, standing on the Neisse, and has long been noted for its woollen and linen manufactures. Here is a great provincial school, and a library containing the archives of the local history. It has likewise a literary society, and a cabinet of natural history. Gorlitz contains six churches, the chief of which has an excellent organ; a spire of great height, and a chapel cut out of the rock. The town has been frequently injured by fires, and has also suffered from sieges. The battle of Bautzen, 21st of May 1813, ended in the neighbourhood. Population 8500. Fifty miles east of Dresden, and sixty-eight north of Prague.

Gor'mand, *n. s.* } Gor'mandise, *v. n.* } Gormandi'ser, *n. s.* } Fr. *gormand*; perhaps of Lat. *voro* (*goro*, as the Gauls would pronounce it), and *mando*, to wish to eat. But Minsheu says q. *gulosè mandere* (to eat gluttonously). A ravenous or luxurious eater: to eat voraciously or greedily.

GOROPIUS (John), M. D., a native of Brabant; author of a work entitled Origines Antuerpianæ, wherein, among other legendary stories, he attempts to prove that the Flemish was the original language spoken by Adam and Eve.

GORREUS (John), M. D., a physician of Paris, in the sixteenth century, who published a translation of Nicander. He was born in 1500. Being a protestant, he suffered much from religious persecution; and, his coach being one day suddenly seized by a party of soldiers, he was attacked with a delirium, and died, in 1572.

GORSE, *n. s.* Sax. ȝoꝛꝛ. Furze; a thick prickly shrub that bears yellow flowers in Winter.

GORSERIA, in botany, a genus of the polygamia frustanea order, and syngenesia class of plants; natural order forty-ninth, compositæ. The receptacle is naked; the pappus woolly; the florets of the radius ligulated or plane: cal. imbricated with spinous scales.

Go'shawk, *n. s.* Sax. ȝoꝛ, goose, and ꝥapco a hawk. A hawk of a large kind.

> Like as a *goshawk*, that in foote doth beare
> A trembling culver having spide on hight
> An eagle, that with plumy wings doth sheare
> The subtile ayre, stouping with all his might
> The quarrey throwes with fell despight
> And to the batteil doth herselfe prepare
> So ran the geauntesse unto the fight.
>
> *Spenser. Faerie Queene.*

> Such dread his awful visage on them cast;
> So seem poor doves at *goshawks* sight aghast.
>
> *Fairfax.*

Goshawk. See Falco.

GOSHEN, in ancient geography, a district of Egypt, which Joseph procured for his father and brethren. It was the most fruitful part of the country; and its name seems to be derived from the Hebrew Geshem; which signifies 'rain;' Calmet thinks that Goshen, which Joshua x. 41, xi. 16, xv. 51, makes part of the tribe of Judah, is the same land of Goshen which was given to Jacob and his sons by Pharaoh. Gen. xlvi. 26.

Goshen, a post town of Orange county, New York, twenty miles west of West Point, sixty-three north of New York, 112 south by west of Albany.

It is pleasant and flourishing, and contains a court house, a gaol, a bank, and an academy, and has considerable trade. It is an excellent agricultural town, situated in a fertile tract of country, and includes a part of the Drowned Lands. The courts for the county are held alternately at Goshen and Newburgh. Three weekly newspapers are published here.

GOSLAR, an old town of Hanover, in Hildesheim, on the Gosse, and at the foot of the Ramelsberg Mountain famous for its mines. Its houses are mean and crowded; but a great fire destroyed about 500 in 1780, and their areas have since been laid out in gardens. The most curious building in the town is the Kaiserhaus, where the emperors in former times used to hold their courts, and call the diet together. It is now used as a magazine. The cathedral contains an altar of Crothos, one of the deities of the ancient Saxons; it is a brass chest with openings on every side to allow the flames to issue upwards and consume the infants laid on it. The inhabitants are chiefly Lutherans, and their chief employment is mining and brewing. Goslar was in former times a free imperial town, but given to Prussia in 1802, and ceded to Hanover in 1814. Here gunpowder is supposed to have been invented by a monk of the name of Berthold Schwartz. It is twenty-eight miles south of Brunswick, and twenty-five south of Wolfenbuttel.

GO'SLING, *n. s.* From goose. A young goose; a goose not yet full grown.

A foole sent forth to fetch the *goslings* home,
When they unto a river's brink were come
(Through which their passage lay) conceived a feare
His dames best brood might have been drowned there.
George Withers.

Why do you go nodding and wagging so like a fool, as if you were hipshot? says the goose to her *gosling*.
L'Estrange.

Nature hath instructed even a brood of *goslings* to stick together, while the kite is hovering over their heads.
Swift.

GOS'PEL, *n. s.* & *v. n.* } Sax. ȝoðeȝ ȝþel,
Gos'PELLER, *n. s.* } or God's good tidings; Gr. ευαγγελιον; Erse. *soskel, skeal, suach*, happy tidings. The Sax. spellian (whence our word SPELL), also signifies to detail. Divinity or theology. To gospel is to fill with sentiments of religion, used in Shakspeare with some degree of irony. Gospeller is a name of the followers of Wickliffe, who first attempted a reformation from popery, given them by the Papists in reproach, from their professing to follow and preach only the gospel. The histories given by the four evangelists are called the gospel, and it is a term applied to the Christian revelation, generally.

Matheu that was of iudee as he is set first in order of *gospellers*, so he wroot first the gospel in iudee, and fro the office of a tolgaderer he was clepid to God.
Wiclif. Prologue on Matheu.

This maiden, bright Cecile, as hire lif saith,
Was come of Romaines, and of noble kind;
And from hire cradle, fostred in the faith
Of Crist; and bare his *gospel* in hire mind.
Chaucer. The Second Nonnes Tale.

And for to make you hem perceiven
That usen folke thus to decieven,
I wol you saine, withouten drede,
What men maie in the *Gospel* rede
Of sainct Mathewe the *gospellere*,
That saieth as I shall you saie here.
Chaucer. Romaunt of the Rose.

Are you so *gospelled*
To pray for this good man, and for his issue,
Whose heavy hand hath bowed you to the grave?
Shakspeare.

These *gospellers* have had their golden days,
Have trodden down our holy Roman faith.
Rowe.

Thus may the *gospel* to the rising sun,
Be spread, and flourish where it first begun. *Wall.*

How is a good Christian animated and cheered by a stedfast belief of the promises of the *gospel!*
Bentley.

All the decrees whereof Scripture treateth are conditionate, receiving Christ as the *gospel* offers him, as Lord and Saviour; the former, as well as the latter, being the condition of scripture-election, and the rejecting or not receiving him thus, the condition of the scripture reprobation. *Hammond.*

The GOSPEL comprehends the history of the life, actions, death, resurrection, ascension, and doctrine of Jesus Christ, recorded in the writings of St. Matthew, St. Mark, St. Luke, and St. John; who are thence called Evangelists. The Christian church never acknowledged any more than these four gospels as canonical. See BIBLE.

GOSPORT, a town of Hampshire, seventy-nine miles from London. It has a ferry over the mouth of the harbour to Portsmouth, and great trade, especially in time of war. Travellers prefer lodging here, as cheaper and more commodious than at Portsmouth. The mouth of the harbour is secured by four forts, and a platform of above twenty cannon level with the water. Gosport has an hospital for sick and wounded sailors, and a free school.

GOS'SAMER, *n. s.* Low Lat. *gossipium*. The down of plants; the long white cobwebs which fly in the air in calm sunny weather, especially about the time of autumn.

As sore wondren som on cause of thonder,
On ebbe, and floud, on *gossomere* and on mist,
And on all things, til that the cause is wist.
Chaucer. The Squieres Tale.

A lovur may bestride the *gassamour*,
That idles in the wanton Summer air,
And yet not fall, so light is vanity. *Shakspeare.*

Four nimble gnats the horses were,
Their harnesses of *gossamere*.
Drayton's Nymphia.

The filmy *gossamer* now flits no more,
Nor halcyons bask on the short sunny shore.
Dryden.

GOSSAMER is the name of a fine filmy substance, like cobwebs, which is seen to float in the air in clear days in autumn, and is more observable in stubble fields, and upon furze and other low bushes. This is probably formed by the flying spider, which, in traversing the air for food, shoots out these threads from its arms which are borne down by the dew, &c.

GOSSELIN (Anthony), regius professor of history and rhetoric in the university of Caen in Normandy, and principal of the College of Du Bois, was author of a Latin history of the ancient Greeks.

GOSSELINI (Julian), an Italian author, born in 1525. At seventeen he was made secretary to Ferdinand de Gonzaga, viceroy of Sicily, and retained that office forty years. He wrote several works in prose and verse; and died at Milan in 1587.

GOS'SIP, *n. s.* & *v. n.* } Sax. ȝoð, and ȝẏb;
Gos'sipred, *n. s.* } Goth. *godsip*. Relation; affinity. The primary idea being relation or affinity, the words are variously applied: as to sponsors in baptism; to tippling companions; to merry chattering persons, as women at a lying-in.

And if I have a *gossip* or a frend,
Withouten gilt,—thou chidest as a fend
If that I walke or play unto his hous.
Chaucer. Prologue to the Wif of Bathes Tale.

And sometimes lurk I in a *gossip's* bowl,
In very likeness of a roasted crab,
And when she drinks, against her lips I bob.
Shakspeare.

Nor met with fortune, other than at feast,
Full warm of blood, of mirth, of *gossiping*. *Id.*

Go to a *gossip's* feast and gaude with me.
With all my heart I'll *gossip* at this feast. *Id.*

Gossipred or compaternity, by the common law, is a spiritual affinity; and the juror, that was *gossip* to either of the parties, might, in former times, have been challenged as not indifferent. *Davies.*

At the christening of George duke of Clarence, who was born in the castle of Dublin, he made bot the earl of Kildare and the earl of Ormond his *gossips*. *Id. On Ireland.*

To do the office of a neighbour,
And be a *gossip* at his labour. *Hudibras.*

'Tis sung in every street,
The common chat of *gossips* when they meet.
Dryden.

The market and exchange must be left to their own ways of talking; and *gossipings* not be robbed of their ancient privilege. *Locke.*

He gives himself up to an idle *gossiping* conversation. *Law.*

He died when last from pilgrimage I came
With other *gossips* from Jerusalem. *Pope.*

There are a set of malicious, prating, prudent *gossips*, both male and female, who murder characters to kill time; and will rob a young fellow of his good name before he has years to know the value of it.
Sheridan.

GOSSLAR, a large and ancient town of Lower Saxony, in the territory of Brunswick. It is a free imperial city, and it was here that gun-powder was first invented. It is a large place, but the buildings are in the ancient taste. In 1728 St. Stephen's fine church and 280 houses were burnt. It is seated on a mountain near the Gose, and near it are rich mines of iron. The inhabitants are famous for brewing excellent beer. Long. 5° 37′ E., lat. 51° 55′ N.

GOSSYPIUM, cotton, a genus of the polyandria order, and monadelphia class of plants; natural order thirty-seven, columniferæ: CAL. double, the exterior trifid: CAPS. quadrilocular: SEEDS enclosed in cotton wool. There are ten species, all natives of warm climates

G. arboreum, the cotton tree, has an upright woody perennial stalk, branching six or eight feet high; palmated, four or five-lobed smooth leaves, and yellow flowers succeeded by large pods filled with seeds and cotton.

G. Barbadense, the Barbadoes shrubby cotton, has a shrubby stalk, branching four or five feet high, three-lobed smooth leaves, glandulous underneath, and yellow flowers succeeded by oval pods containing seeds and cotton.

G. herbaceum, the common herbaceous cotton, has an herbaceous smooth stalk two feet high, branching upwards; five-lobed smooth leaves, and yellow flowers from the end of the branches succeeded by roundish capsules full of seeds and cotton.

G. hirsutum, the hairy American cotton, has hairy stalks branching laterally two or three feet high; palmated, three and five-lobed hairy leaves, and yellow flowers succeeded by large oval pods furnished with seeds and cotton.

The last three species are annual, but the first is perennial both in root and stalk. In warm countries these plants are reared in great quantities in fields for the sake of the cotton; but the herbaceum species is most generally cultivated. The pods are sometimes as large as middling sized apples, closely filled with the cotton surrounding the seed. When these plants are raised in this country, they must be continually kept in a warm stove, where they will produce seeds and cotton. The American islands produce cotton shrubs of various sizes, which rise and grow up without any culture; especially in low and marshy grounds. Their produce is of a pale red; some paler than others; but so short that it cannot be spun. None of this is brought to Europe, though it might be usefully employed in making hats. The little that is picked up, serves to make mattresses and pillows. The cotton shrubs, that supply our manufactures, require a dry and stony soil, and thrive best in ground that has been tilled. The plant appears more flourishing in fresh lands than in those which are exhausted; but, while it produces more wood, it bears less fruit. A western exposure is fittest for it. The culture begins in March and April, and continues during the first spring rains. Holes are made at seven or eight feet distance, and a few seeds thrown in. When they are five or six inches high, all the stems are pulled up, except two or three of the strongest. These are cropped twice before the end of August. This precaution is necessary, as the wood bears no fruit till after the second pruning; and, if the shrub was suffered to grow more than four feet high, the crop would not be greater, nor the fruit so easily gathered. The same method is pursued for three years; for so long the shrub may continue, if it cannot conveniently be renewed oftener with the prospect of an advantage that will compensate the trouble. This useful plant will not thrive if great attention is not paid to pluck up the weeds that grow about it. Frequent rains promote its growth; but they must not be incessant. Dry weather is particularly necessary in March and April, which is the time of gathering the cotton, to prevent it from being discolored and spotted. When gathered in, the seeds must be picked out from the wool with which they are naturally mixed. This is done by a cotton mill; composed of two rods of hard wood, about eighteen feet long, eighteen lines

in circumference, and fluted two lines deep. They are confined at both ends, so as to leave no more distance between them than is necessary for the seed to slip through. At one end is a little millstone, which, being put in motion by the foot, turns the rods in contrary directions. They separate the cotton, and throw out the seed contained in it. See COTTON.

GOT, participle of get. See GET.

GOTHA-ELF, a considerable river in the south-west of Sweden, formed by the junction of a number of torrents flowing from the Norwegian Alps. Before falling into the lake Wener, it bears the name of Clara-Elf: after flowing out of that lake, near Wenersborg, and about fifty miles from Gottenburg, it forms the famous cataracts of Trolhata. It is now navigable, and in its course divides into two branches, both of which fall into the Cattegat, the one passing through Gottenburg, the other a few miles to the north. A great obstacle to the navigation of this river being the cataracts of Trolhata. An association was formed, in 1793, to conduct a canal parallel to its course at the place of the cataracts. They completed this undertaking in 1800: and it is said to be the intention of the Swedish government to prolong the line of navigation by the Wetter and other lakes, so as to unite the German Ocean and the Baltic, through the centre of that kingdom.

GOTHA, SAXE, DUCHY OF, is a small state of Germany, which comprises a great part of the southern regions of Thuringia, and a portion of the principality of Altenburg. The whole surface is about 1170 square miles. It is bounded by Saxe-Weimar, Prussia, and Schwartzburg. South-west it is hilly and covered with forests; but the other parts are fertile, and grain is raised in considerable quantities. Flax and woad are also grown. The rivers are the Leine and the Neisse. Among its mineral products are iron, coal, manganese, and cobalt. Many of the inhabitants are also engaged in manufacturing ticken and woollen cloth.

Saxe-Gotha is altogether independent. The executive power is possessed by the duke and his privy council, but there is a diet composed of the land-holders and deputies from the towns, who meet every fourth year. The religion is Lutheranism, but all persuasions are tolerated. The duke maintains a small armed force; his contingent to the general army of the confederation of Germany is 1875 men, and the annual revenue of the state about £150,000. Gotha and Altenburg are the chief towns.

GOTHA, the capital of the foregoing duchy, is, according to a recent traveller, 'a beautiful object.' It is built round a hill of considerable elevation, and towers above the surrounding country, presenting fine prospects in every direction. The suburbs, which are extensive, contain a number of houses in the midst of elegant gardens, and give a cheerful aspect to the environs. The streets within the city, though some of them are steep, are handsome: many of the houses are very large, and the whole has the appearance of opulence and comfort. The most prominent object is the Schloss, or ducal palace, in which the reigning duke resides. Here is a large and valuable library, with a good collection of curiosities. Among the MSS. are more than 3000 charters and other official documents, with a number of scarce works on coins. Gotha is partly surrounded by rows of stately trees, and the suburbs are ornamented with fountains. Its manufactures are porcelain, woollen, and cotton, and it partakes in the trade between Leipsic and the south-west of Germany. Population 12,000.

GOTHARD (St.), one of the highest mountains west of Switzerland. From the top, where there is an hospital for travellers and a monastery for monks, is one of the most pleasing prospects in the world. It is eight miles from Altorf, and is situated in the canton of Uri, on the confines of the Vallais, the Grisons, and Italy. Its ancient name, according to Ptolemy and Strabo, was Adula. The Rhine, the Reuss, the Rhone, and the Aar rise in it. Considered in its utmost extent, it comprehends, besides St. Gothard, properly so called, the mountains of Crispias, Fourche, Grimsel, and Vogelsburg. Its top is covered with eternal snow, varying in height from 8000 to 12,000 feet. It has some mines of fine crystals. No fewer than thirty lakes are situated in this range. The Reuss particularly fixes the attention of the traveller, as it runs parallel with the road a great part of the way, and over it is erected that singular arch called the Devil's Bridge, the abutments of which rest on each side on peaks of rock at an immense elevation.

The road across these mountains into Italy is from ten to fifteen feet broad, and not so steep and difficult as might be expected. It is well paved with granite, but in winter the passage is rendered inconvenient by the snow which lies to the depth of twenty or thirty feet, and the winter lasts long. But the carrying trade is still prosecuted actively, and takes place chiefly on sledges, drawn by a couple of oxen. Other carriages have not as yet been used here. There is a subterraneous passage cut through a mass of rock, which was too high to be climbed, and too vast to be removed; the opening is about twelve feet in height, and as much in width; in length about 200; it is almost dark, the light being admitted only at the ends and at a small crevice. Nothing can exceed the contrast exhibited to the traveller coming from the north, who, after seeing nature in her most frigtful form, and passing this dreary cavern, opens all at once on the vale of Urseren. This gallery is called the Urnerloch or Rochepercée. This tremendous mountain was passed on the 25th and 26th of May, 1800, by a division of the French army under general Moncey, consisting of 25,000 men.

GOTHLAND, the southern and most fertile division of Sweden, or all the country to the southward of the lake Wener, has the Cattegat, the Sound, and the Baltic, for its maritime boundaries. It is mentioned in history both under the general name of Gothland, or by the divisions of East, West, and South Gothland; but none of these are recognised in the recent dis-

tribution of Sweden into provinces, which are much smaller, and consist, in the case of Gothland, of the provinces of Smaland, Halland, Christianstadt, Culmar, Gottenburg, Skaraborg, Cronoberg, Blekingen, Ionkoping, Linkoping, and Malmohuns. It contains 40,000 square miles and 1,500,000 inhabitants. See SWEDEN.

GOTHLAND, or GOTTLAND (i. e. Swed. goodland), an island eighteen leagues distant from the nearest point of Sweden, and from Windau the nearest point of Courland. It is twenty leagues long and seven at its greatest breadth, forming an elevated plain from 150 to 200 feet above the level of the sea. In some places the shore ascends gradually, but in others it resembles a wall. It has two hills, Torsberg on the east, and Hoberg on the south. The first is a steep and naked rock, on the summit of which is a hollow plain, 1200 feet in circumference, and always covered with water. The Hoberg is also a steep rock, remarkable for its caverns, one of which, called the bedchamber of the old man of the mountain, resembles a well-proportioned apartment, and is the subject of many popular tales.

This island is composed of calcareous substances, such as marble, breaches, calcareous spath, and earth, distributed in strata, and often mixed with free-stone containing mica. Besides the extensive beds of madrepores, &c., found round it, entroques, anomias, and mytilus, are also met with petrified, as well as fragments of carneolas, agates, and granite. The soil towards the north is a compact clay producing forests of pines; on the south it is a mixture of sand, clay, and earth. The interior has several lakes and rivers; of the latter the principal is the Lummeland, which issues from lake Morteba, sinks into the earth, and after having made itself a subterraneous passage twelve feet wide and six high, re-appears as a rapid torrent.

The climate is more temperate than that of the neighbouring coast of Sweden, the walnut-tree producing fruit. The grains are, wheat, barley, rye, and oats, cultivated in farms spread all over the island. Cattle are reared in considerable numbers, particularly sheep, of which the breed has been lately improved by a cross of the Merino. The forests in the north part furnish plank, tar, and potash for exportation, and the quarries, marble, building, and limestone. Population about 35,000.

There is but one town here and two or three villages. Wisby, the former, is built on a rock on the west coast, and contains 3000 to 4000 inhabitants. It was once a depôt of the Hanse league; and the ruins of several large churches, and other buildings, prove it to have been of more consequence than at present. Its port can only receive a few small vessels. The havens of Capelshamn on the north and Slitehamn on the east, are more capacious; particularly the latter, which is one of the best ports of the Baltic, and defended by the fort of Carlsbelt.

Until the thirteenth century, the Gottlanders enjoyed a degree of independence under the protection of Sweden, but their internal disputes at last caused their entire submission to that power. The island for a short time, in the middle of the fourteenth century, fell under the dominion of Denmark, and, towards the end of that century, a horde of pirates occupied its coasts. The Teutonic knights at last attacked and destroyed them, and the island acknowledged the sovereignty of the grand master of the order, who sold it to Sweden for 9000 gold nobles. It was ceded to Sweden from Denmark by the peace of Brœmesbro in 1644.

Gothland forms a government, and has a bishop of its own, together with a small militia for its defence; it also furnishes a considerable number of seamen to the Swedish fleet. A considerable number of runic stones have been found on this island, but none more ancient than the introduction of Christianity.

GOTHIC LANGUAGE. Our principal connexion with the fragments that remain of this language is in the etymology of our own. This we shall be found to remember in our Lexicon; and for some original remarks on the subject generally, see GRAMMAR, part I. sect. 2.

GOTHOFRED, or GODFREY (Dionysius, or Denis), an eminent lawyer, born of an illustrious family at Paris, in 1549. France being involved in confusion by the leaguers, he accepted of a professor's chair at Geneva, until he was employed by Henry IV.; but, being afterwards stripped of his employments as a Huguenot, he retired to Heidelburg, whence no offers could detach him. The disturbances in the Palatinate obliged him, in 1621, to take refuge in Strasburg, where he died in 1622. He wrote a great number of books; his principal work is the Corpus Juris Civilis, cum notis.

GOTHOFRED (Theodore, or Theodosius), son of Denis, was born at Geneva in 1580. As soon as he had finished his studies he went to Paris; where he conformed to the Romish religion, and applied with indefatigable industry to the study of history, (that of France particularly), wherein he became very eminent. In 1632, Louis XIII. made him one of his historiographers, with a stipend of 3000 livres; and, in 1636, he was sent to Cologne, to assist at the treaty of peace negociating there, on the part of France, by the cardinal of Lyons. This treaty being removed to Munster, Gothofred was sent thither, where he drew up memoirs on the subject; and continued in that city, in the king's service, to his death in 1649. His principal work is his Account of the Ceremonial of the Kings of France.

GOTHOFRED (James), brother of Theodore, was born at Geneva in 1587. Applying himself to the study of the law, he obtained the professor's chair there, and was made counsellor of the city, and was several times in France, Germany, Piedmont, and Switzerland, to negociate the affairs of the republic. He died in 1562; and his chief work is his Codex Theodosianus, cum perpetuis commentariis, &c.

GOTHOFRED (Denis), son of Theodore, was born at Paris in 1615. He studied history after his father's example; became as eminent in that department of knowledge; and obtained the reversion of his father's place of historiographer royal, from Louis XIII., when he was but twenty-

five years of age. He published his father's Ceremonial of France; finished his Memoirs of Philip de Commines; and was preparing a *History* of Charles VIII., when he died in 1681.

GOTHS, a warlike nation, famous in the Roman history, who came originally out of Scandinavia, the name given by the ancients to Sweden, Norway, Lapland, and Finmark. According to the most probable accounts, they were the first inhabitants of those countries; and thence sent colonies into the islands of the Baltic, the Cimbrian Chersonesus, and the adjacent places. The time of their first settling in Scandinavia, and of their first peopling the above-mentioned islands and Chersonesus, are equally uncertain; though the Gothic annals state the latter to have happened in the time of Serug the great-grandfather of Abraham. The first migration of the Goths is said to have been conducted by their king Eric; in which all the ancient Gothic chronicles, as well as the Danish and Swedish ones, agree. Their second migration is said to have happened many ages after; when, being overstocked with people, Berig, then king of the Goths, went out with a fleet in quest of new settlements. He landed in the country of the Ulmerugians, now Pomerania, drove out the ancient inhabitants, and divided their lands among his followers. He fell next upon the Vandals, whose country bordered on that of the Ulmerugians, and overcame them; but, instead of forcing them to abandon their country, he only made them share their possessions with the Goths. The Goths, who settled in Pomerania and the adjacent parts of Germany, being greatly increased, undertook a third migration in great numbers under Filimer the Great, their fifth prince after leaving Scandinavia; and, taking their route eastward, entered Scythia, advanced to the Cimmerian Bosphorus, and, driving out the Cimmerians, settled near the Palus Mæotis. Thence, in process of time, being greatly increased in Scythia, they resolved to seek new settlements; and accordingly, taking their route eastward, they traversed several countries, and at length returned into Germany. Their leader in this expedition was the celebrated Woden. See ODIN and WODEN.

At what time Woden reigned in this country, is quite uncertain; but all historians agree, that he went in quest of new settlements with incredible numbers of people following him. He first entered Roxolania, comprehending the countries of Prussia, Livonia, and a great part of Moscovy: thence he went by sea into the north parts of Germany; and, having reduced Saxony and Jutland, he at last settled in Sweden, where he reigned till his death, and became so famous that his name reached all countries, and he was by the northern nations worshipped as a god. He is said to have brought the Runic characters out of Asia, and to have taught the northern nations the art of poetry; whence he is styled the father of the Scaldi or Scaldri, their poets, who described in verse the exploits of the great men of their nation, as the bards did among the Gauls and Britons. The Romans distinguished the Goths into two classes; the Ostrogoths and Visigoths. These names they received before they left Scandinavia; the Visigoths being softened by the Latins from Westerogoths, or those who inhabit the western part of Scandinavia, as the Ostrogoths were those who inhabited the eastern part of that country. Their history affords nothing of importance till the time of their quarrelling with the Romans; which happened in the reign of Caracalla. After that period it becomes so closely interwoven with that of the Romans that, for the most remarkable particulars of it, we must refer to the article ROME. After the destruction of the Roman empire, by the Heruli, the Ostrogoths, under Theodoric, became masters of the greatest part of Italy, having overcome and put to death Odoacer king of the Heruli in 494. They retained their dominion in this country till A. D. 553; when they were finally conquered by Narses, Justinian's general: see ITALY. The Visigoths settled in Spain, in the time of Honorius, where they founded a kingdom which continued till the country was subdued by the Saracens. See SPAIN. The Goths were famous for their hospitality and kindness to strangers, even before they embraced Christianity. Nay, it is said, that from their being eminently good, they were called Goths, by the neighbouring nations; that name, according to Grotius and most other writers, being derived from the German word goten, which signifies good. They encouraged, says Dio, the study of philosophy above all other barbarous or foreign nations, and often chose kings from among their philosophers. Polygamy was not only allowed but countenanced among them; every one being valued or respected according to the number of his wives. By so many wives they had an incredible number of children, of whom they kept but one at home, sending out the rest in quest of new settlements; and hence those swarms of people which over-ran so many countries. With them adultery was a capital crime, and irremissibly punished with death. Polygamy prevailed among them when they were known to the Romans only by the name of Getes (their most ancient name); as appears from the poet Menander, who was himself of that nation; and from Horace who greatly commends the chastity of their women. Their laws fell little short of those of the ancient Romans. Their government was monarchical; their religion was much the same with that of the ancient Germans or Celtes; and their dress is described by Appollinaris Sidonius in the following words: They are shod, says he, with high shoes made of hair, and reaching up to their ankles; their knees, thighs, and legs, are without any covering; their garments of various colors scarcely reaching to the knee; their sleeves only cover the top of their arms; they wear green cassocks with a red border; their belts hang on their shoulder; their ears are covered with twisted locks; they use hooked lances and missile weapons.

GOTTENBURG, or GOTHENBURG, is an important town of Sweden, standing on a marsh interspersed with ridges of rock rising from 100 to 300 feet in height. The town occupies the plain, and one of the ridges on the west side;

y which it is divided into upper and lower. The houses are built upon piles. Great harbour runs from east to west, and divides the town into two nearly equal parts; it consists of well-built houses of three stories high, and is crossed at right angles by two other principal streets. Several of the streets of Gottenburg are traversed by canals, bordered with trees. The Upper Town, has an imposing appearance, the houses rising one above another in the form of an amphitheatre; and the streets being wide and clean, but without any side pavement. The houses are generally built of stone or brick, and are large, having pillars in front, and flat concealed roofs. The circumference, exclusive of the suburbs of Haga, is about three miles. The public edifices of Gottenburg are the exchange, the extensive buildings belonging to the East India Company, an hospital, and a magnificent church built since 1812, with stones from Scotland. The only curiosities are a few private collections of paintings.

The harbour is the best situated for foreign trade of any in Sweden, and is formed by two long chains of rocks. It is about a quarter of a mile in breadth, commodious for vessels of moderate size; and has a fort on a small rocky island at the entrance. Gottenburg ranks next to Stockholm, as a trading town; the principal manufactures are coarse linen, and woollen stuffs, sail-cloth, ropes, some silk and cotton goods, soap, tobacco, and sugar refining. Its mercantile transactions extend to America and the Indies: but a very large connexion is kept up with Scotland. Iron and steel, furnished by the mines of Warmeland, are the principal articles of export; and after these, linen, timber, tar, train oil, alum, and herrings.

Gottenburg is the seat of the Swedish East India Company; and a Greenland whale fishery was set on foot in 1775. The number of vessels belonging to the port is upwards of 250; that of vessels of all nations that enter it annually, about 1000. This port flourished greatly during the exclusion of the English from the continental ports, when it was a depôt of British as well as Baltic goods. It has a large provincial school, a mercantile academy, and an academy of sciences and literature, and the English language is pretty generally spoken. It is the see of a bishop, the seat of a chamber of manufactures, and of various courts of justice.

Charles IX., when duke of Gothland, in 1607 founded a town of this name on the island of Hisingen; it was, however, destroyed by the Danes in 1611, and was rebuilt by Gustavus Adolphus in its present position. Few places have suffered more from fire; two calamities of this kind took place in December 1802 and November 1804; by the former, 179 houses and the cathedral were burned down, and the latter consumed upwards of 200 houses, the barracks and several granaries. The fortifications have been lately demolished. The province comprises the adjacent country, (part of West Gothland) to the extent of 760 square miles. The town contains about 25,000 inhabitants. Forty miles south of Uddevalla.

GOTTINGEN, a province of the south of Hanover, bounded by Brunswick, Hildesheim, the Prussian states, and Hesse-Cassel. It includes several distinct tracts of country, viz. the quarter of Gottingen, the principality of Grubenhagen, Elbingeroda, Hohenstein, the bailiwics of Plesse, and Gleichen, with a small portion of the Eichsfeld, lately ceded by Prussia. Its superficial extent is 1225 square miles, and its population (chiefly Lutherans) 176,000. The eastern side includes the Hartz and the adjoining mountains, and is cold. The Weser forms its boundary on one side, and it is also watered by the Leine and the Rhume. This province abounds in flax, tobacco, and fruit, and grows some little corn: it has extensive pasturages and forest lands, and contains all the mines of silver, copper, lead, and iron in the kingdom. The country is now divided into bailiwics and jurisdictions, like the rest of Hanover.

GOTTINGEN, the capital of the above province, stands in a valley on a canal branching from the Leine, at the foot of the Haimberg Mountain. The streets are wide and well paved, and lighted at night; and its situation is healthy. It was formerly fortified; but the walls are demolished, or laid out in walks, which command a pleasant prospect. Gottingen was, some centuries ago, included in the list of Hanse towns; but its chief title to notice arises from its university founded by George II. in 1734. It is on a nobly comprehensive plan, embracing divinity, philosophy, law, and medicine. The number of professors is unlimited, and generally exceeds forty.

A lively modern traveller gives the following picture of this university and some of its most distinguished literati:—

'Gottingen, though not yet 100 years old, has already exhibited more celebrated men, and done more for the progress of knowledge in Germany, than any other similar institution in the country. Meyer, Mosheim, Michaelis, and Heyne, are names not easily eclipsed; and, in the present day, Blumenbach, Gauss, whom many esteem second only to La Place, Hugo, Hieren, and Sartorius, fully support the pre-eminence of the Georgia Augusta. Europe has placed Blumenbach at the head of her physiologists; but, with all his profound learning, he is in every thing the reverse of the dull, plodding, cumbersome, solidity, which we have learned to consider as inseparable from a German savant—a most ignorant and unfounded prejudice. Göthe is the greatest poet, Wolff the greatest philologist, and Blumenbach the greatest natural historian of Germany; yet it would be difficult to find three more jocular and entertaining men. Blumenbach has not an atom of academical pedantry or learned obscurity about him; his conversation is a series of shrewd and mirthful remarks on any thing that comes uppermost, and such likewise I have heard it said, is sometimes his lecture. Were it not for the chaos of skulls, skeletons, mummies, and other materials of his art, with which he is surrounded, you would not easily discover, unless you brought him purposely on the subject, that he had studied natural history. He sits among all sorts of odd things, which an ordinary person would call lumber,

and which even many of those who drive his own science could not make much of; for it is one of Blumenbach's excellencies, that he contrives to make use of every thing, and to find proofs and illustrations where no other person would think of looking for them. By the side of a drawing which represented some Botocuda Indians, with faces like baboons, cudgelling each other, hung a portrait of the beautiful Agnes of Mansfeld. A South American skull, the lowest degree of human confirmation, grinned at a Grecian skull, which the professor reckons the perfection of crania. Here stood a whole mummy from the Canary Islands, there half a one from the Brasils, with long strings through its nose, and covered with gaudy feathers, like Papageno, in the magic flute. Here is stuck a negro's head, there lies a Venus, and yonder reclines, in a corner, a contemplative skeleton, with folded hands. Yet it is only necessary to hear the most passing remarks of the professor, as you stumble after him through this apparent confusion, to observe how clearly all that may be learned from it is arranged in his head, in his own scientific combinations. The only thing that presented external order, was a very complete collection of skulls, showing the fact, by no means a new one, that there is a gradual progression in the form of the skull, from apes up to the most generally received model of human beauty. 'Do you see these horns?' said he, searching among a heap of oddities, and drawing forth three horns, 'they were once worn by a woman. She happened to fall and break her head; from the wound sprouted this long horn; it continued to grow for thirty years, and then she cast it; it dropped off; in its place came a second one; but it did not grow so long, and dropped off too. Then this third one all on the same spot; but the poor woman died while the third was growing, and I had it cut off from the corpse.' They were literally three genuine horns. The last two are short, thick, and nearly straight; but the first is about ten inches long, and completely twisted, like the horn of a ram. It is round and rough, of a brownish color, and fully half an inch in diameter towards the root. All three are hollow, at least at the base. The termination is blunt and rounded. Other instances of the same thing have been known, but always in women; and Blumenbach says it has been ascertained, by chemical analyses, that such horns have a greater affinity, in their composition, with the horns of the rhinoceros, than with those of any other animal.

'The pre-eminence of Gottingen is equally founded in the teachers and the taught. A Gottingen chair is the highest reward to which a Germant savant aspires, and to study at Gottingen is the great wish of a German youth. There are good reasons for this both with the one and the other. The professor is more comfortable, in a pecuniary point of view, and possesses greater facilities for pushing on his science, than in the other universities; the student finds a more gentlemanly tone of manners than elsewhere, and has within his reach better opportunities of studying to good purpose. This arises from the exertions of their government to render the different helps to study—the library, the observatory, the collections of physical instruments, and the hospitals—not as costly, but as useful as possible. It has never adopted the principle of bribing great men by great salaries, a principle naturally acted on in those universities which possess no other recommendation than the fame of the teachers. It has chosen rather to form and organise those means of study which, in the hands of a man of average talent (and such are always to be had) are much more generally and effectively useful, than the predilections of a person of more distinguished genius when deprived of this indispensable assistance. The professors themselves do not ascribe the rapidly increasing prosperity of the university so much to the reputation of distinguished individuals who have filled so many of its chairs, as to the pains which have been taken to render these means of improvement more perfect than they are to be found united in any sister seminary. 'Better show-collections,' said professor Hieron very sensibly, 'may be found elsewhere; but the great recommendation of ours is, that they have been made for use, not for show; that the student finds in them every thing he would wish to see and handle in his science. This is the true reason why the really studious prefer Gottingen, and this will always secure our pre-eminence, independent of the fame of particular teachers; the latter is a passing and changeable thing, the former is permanent.' Above all, the library is a great attraction, both to the teacher and the learner. It is not only the most complete among the universities, but there are very few royal or public collections in Germany which can rival it in real utility. It is not rich in manuscripts, and many other libraries surpass it in typographical rarities, and specimens of typographical luxury; but none contains so great a number of really useful books in any given branch of knowledge. The principle on which they proceed is, to collect the solid learning and literature of the world, not the curiosities and splendors of the printing art. If they have twenty pounds to spend, instead of buying some very costly edition of one book, they very wisely buy ordinary editions of four or five. When Heyne undertook the charge of the library, in 1763, it contained 60,000 volumes. He established the prudent plan of increase, which has been followed out with so much success, and the number is now nearly 200,000. They complain much of the expense of English books. No compulsory measures are taken to fill the shelves, except that the booksellers of Gottingen itself must deliver a copy of every work which they publish.' *Russell's Tour in Germany.*

A new observatory at Gottingen, which was some years since begun under the direction of the celebrated M. Gauss, is now provided with fixed instruments of high perfection, viz. a meridian circle by Repsold; and another meridian circle and transit instrument by Reichenbach. These instruments are so perfect, that the two last show, under favorable circumstances, at noon, stars of the fourth or even of the fifth magnitude. A regular course of observations is carried on at the observatory

There are in Gottingen four Lutheran and two Calvinist churches; a Catholic chapel, and some manufactures of linen and woollen. The town has twice been in the possession of the French, viz. from 1757 to 1762, and from 1803 to 1813. A serious difference took place between the students and the inhabitants of the town in October 1818; the government took part with the latter, and, though some diminution took place in the number of students, it was considered as only temporary. Inhabitants, exclusive of students and military, 8500. Twenty-one miles north-east of Cassel, and fifty-one E. S. E. of Paderborn.

GOTTO, a country of Central Africa, to the south of the Niger, between Bambarro and Tombuctoo. It was formerly divided into a number of small states dependent upon Bambarra; but a chief of the name of Mossee succeeded in uniting these, and forming them into a general confederacy, with which he carried on a successful war against Bambarra, and Gotto has since been an independent state. The capital is called Moosseedoo, from the name of the above-mentioned chief.

GOUANIA, in botany, a genus of the monœcia order, polygamia class of plants: CAL. of the hermaphrodite quinquefid: COR. none; there are five antheræ covered with an elastic calyptra or hood: the style trifid; the fruit inferior to the receptacle of the flower, divisible into three SEEDS. The make is like the hermaphrodite, but wanting stigma and germen. Species one only; a native of St. Domingo.

GOUDA, or TER GOUW, a town of South Holland, on the Issel, where that river receives the Gouw. It has large manufactures of porcelain and tobacco-pipes, and a commodious port on the Issel, its situation being central for the communication between Holland, Zealand, and Belgium. Gouda is surrounded with ditches of great depth and width, and can, by means of its sluices, lay the whole surrounding country under water. The most accessible point is on the side of the Issel; but this is defended by a strong battery. The church of St. John the Baptist is handsome, and is particularly celebrated for its painted glass windows. The market place is of a triangular form, with a handsome town-house, built in 1449. Population 12,000. Nine miles north-east of Rotterdam, and twenty-two south of Amsterdam.

GOUDT (Henry), usually called count Goudt, was born of a noble family at Utrecht, in 1570: and was knight of the Palatinate. Being fond of painting and engraving, he applied himself diligently to drawing, and made a great proficiency therein. He then went to Rome, where he contracted an intimacy with Adam Elsheimer, studied his style, and made his works models for imitation. Those pictures which Goudt himself painted were delicately touched, in color and pencil resembling Elsheimer. On his return to Utrecht, a young woman who was in love with him, and desirous of fixing his affection upon herself, gave him a philter, which terminated in a very melancholy manner, by depriving him of his senses; and in this dreadful state he dragged on a miserable life to the age of sixty-nine, his death happening in 1639. It is remarkable that, though lost to every other subject, when painting was spoken of he would discourse upon it in a very rational manner. He engraved seven beautiful prints after the pictures of Elsheimer, which are well known to the curious, and are to be met with in most choice collections. He worked with the graver only, in a very neat style; and produced a most powerful effect, not by strengthening the strokes, according to the usual method, but by crossing them with additional strokes, equally neat, five or six times, one over another, in the deep shadows. The weeds and other parts of the fore ground, in his admirable print of Ceres, are very finely expressed. The seven prints mentioned above, are 1. Ceres drinking from a pitcher. An old woman appears holding a candle at the door of the cottage, and a boy naked standing by her laughing and pointing at the goddess; for which contempt he was metamorphosed by her into a frog The powerful and striking effect of this engaving cannot be properly described. This print is also called the sorcery. 2. The flight into Egypt; a night scene, in which the moon and stars are introduced with great success. 3. The angel with Tobit, who is drawing a fish by his side. The back ground is a landscape; the weeds in the fore ground, and the branches of the trees in front, as well as the foliage and weeds hanging from them, are beautifully expressed. 4. The angel with Tobit, crossing a stream of water: the back ground a landscape. 5. Baucis and Philemon entertaining Jupiter and Mercury. 6. A landscape called the Aurora, representing the dawn of day. 7. The beheading of St. John in prison, a very small upright oval print, which is by far the most scarce.

To GOVE, to mow; to put in a gove, goff, or mow. An old word.

Load safe, carry home, follow time being fair,
Gove just in the barn, it is out of despair. *Tusser.*

GOVEA (Antony), a Latin poet and critic of the sixteenth century; author of Latin Epigrams, which have been admired. His editions of Virgil and Terence display great judgment and critical accuracy. He died in 1613.

GOV'ERN, *v. a.* & *v. n.*
GOV'ERNABLE, *adj.*
GOV'ERNANCE, *n. s.*
GOVERNAN'TE, *n. s.*
GOV'ERNESS, *n. s.*
GOV'ERNMENT, *n. s.*
GOV'ERNOR, *n. s.*
GOVERNAILLE', *n. s*

Fr. *gouverner*, *gouvernante*; Lat. *guberno*; all of Gr. κυβερναω, à κυβη, the head; Belgic *govnerneren*; Span. and Port. *governan*. Our words are principally formed from the French *gouverner* with different terminations. The primary idea is superiority either in position or agency, and this is the key to each word, whether referring to communities or individuals. It also implies self-management as to body or mind; influence of words on each other with regard to construction; a pilot, regulator, or manager of ships, &c.; a lady who has the care and superintendance of young ladies of quality.

For the kingdom is the Lord's, and he is the *governor* among the nations. *Ps.* xxii. 28.

Behold all the ships, which though they be so great, and are driven of fierce winds, yet they are turned

about with a very small helm, whithersoever the *governor* listeth. *Jas.* iii. 4.

Jonathan took the *governance* upon him at that time, and rose up instead of his brother Judas. 1 *Mac.* ix. 31.

Ye han well and convenably taught me, as in general how I shal *governe* me in he chesing and in the witholding of my conseillours. *Chaucer. The Tale of Melibeus.*

Aurelian when that the *governance*
Of Rome came into his hondes twey,
He shope upon this quene to do vengeance,
And with his legions he toke his way
Toward Zenobie. *Id. The Monkes Tale.*

Beth not bedaffed for your innocence,
But taketh on you the *governaile*.
Id. The Merchantes Tale.

Great affliction that severe *governess* of the life of man brings upon the soul she seizes on. *More against Atheism.*

No *government* can do any act to limit itself: the supreme legislative power cannot make itself not to be absolute. *Lesley.*

During the minority of kings, the election of bishops, and other affairs of the church, must be left in the hands of their *governours* and courtiers. *Id.*

He likest is to fall into mischance
That is regardless of his *governance*.
Spenser.

Their god
Shot many a dart at me with fierce intent;
But I them warded all with wary *government*. *Id.*

This inconvenience is more hard to be redressed in the *governor* than the *governed*; as a malady in a vital part is more incurable than in an external. *Spenser on Ireland.*

It must be confessed, that of Christ, working as a creator and a *governour* of the world by providence, all are partakers. *Hooker.*

Thy eyes windows fall,
Like death, when he shuts up the day of life;
Each part deprived of supple *government*,
Shall stiff and stark, and cold appear, like death.
Shakspeare.

What! shall king Henry be a pupil still,
Under the surly Gloster's *governance*? *Id.*

You needs must learn lord, to amend this fault;
Though sometimes it shows greatness, courage, blood,
Yet oftentimes it doth present harsh rage,
Defect of manners, want of *government*,
Pride, haughtiness, opinion, and disdain. *Id.*

To you, lord *governour*,
Remains the censure of this hellish villain. *Id.*

To Eltam will I, where the young king is,
eing ordained his special *governour*;
And for his safety there I'll best devise. *Id.*

The moon, the *governess* of floods,
Pale in her anger, washes all the air,
That rheumatick diseases do abound. *Id.*

Go after her, she's desperate; *govern* her. *Id.*

They that *govern* most make least noise. You see when they row in a barge, they that do drudgery work, slash, and puff, and sweat; but he that *governs* sits quietly at the stern, and scarce is seen to stir. *Selden.*

There they shall found
Their *government*, and their great senate chuse
Through the twelve tribes, to rule by laws ordained.
Milton.

With Boynton or with Middleton 'twere sweet,
But with a parliament abhors to meet,
And thinks 'twill ne'er be well within this nation
Till it be *governed* by a convocation. *Marvell.*

Whipping, that's Virtue's *governess*,
Tut'ress of arts and sciences. *Hudibras.*

He presented himself unto her, falling down upon both his knees, and holding up his hands, as the old *governor* of Danae is painted, when she suddenly saw the golden shower. *Sidney.*

Safety and equal *government* are things
Which subjects make as happy as their kings.
Waller.

Slaves to our passions we become, and then
It grows impossible to *govern* men. *Id.*

There seem to be but two general kinds of *government* in the world: the one exercised according to the arbitrary commands and will of some single person; and the other according to certain orders or laws introduced by agreement or custom, and not to be changed without the consent of many. *Temple.*

By that rule
Your wicked atoms may be working now
To give bad counsel, that you still may *govern*.
Dryden.

While he survives, in concord and content
The commons live, by no divison rent;
But the great monarch's death dissolves the *government*. *Id.*

The great work of a *governour* is to fashion the carriage, and form the mind; to settle in his pupil good habits, and the principles of virtue and wisdom. *Locke.*

The flexibleness of the former part of a man's age, not yet grown up to be headstrong, makes it more *governable* and safe. *Id.*

I am at present against war, though it puts the power into my hands, and though such turbulent and naughty spirits as you are, *govern* all things in times of peace. *Davenant.*

The magistrate cannot urge obedience upon such potent grounds as the minister, if so disposed, can urge disobedience: as, for instance, if my *governour* should command me to do a thing, or I must die, or forfeit my estate; and the minister steps in and tells me, that I offend God, and ruin my soul, if I obey that command, 'tis easy to see a greater force in this persuasion. *South.*

Every one knows, who has considered the nature of *government*, that there must be in each particular form of it an absolute unlimited power. *Addison.*

Listen, children, unto me,
And let this your lesson be,
In our language evermore
Words that *govern* go before.
Mauger's French Grammar.

The chief point, which he is to carry always in his eye, and by which he is to *govern* all his counsels, designs, and actions. *Atterbury.*

They beget in us a great idea and veneration of the mighty author and *governour* of such stupenduous bodies, and excite and elevate our minds to his adoration and praise. *Bentley.*

Where any one person or body of men seize into their hands the power in the last resort, there is properly no longer a *government*, but what Aristotle and his followers call the abuse or corruption of one. *Swift.*

Those *governments* which curb not evils, cause;
And a rich knave's a libel on our laws. *Young.*

Another very important branch of self-knowledge is, the knowledge of those *governing* passions or dispositions of the mind, which generally form what we call a man's natural temper. *Mason.*

GOVERNMENT is also used for a post or office, which gives a person the power or right to rule over a city, or a province, either supremely or by deputation.

Government is likewise used for the city, country, or place to which the power of governing is extended.

Government, Civil, was instituted for the preservation and advancement of men's civil interests, and for the better security of their lives, liberties, and properties. The use and necessity of government is such, that there never was an age or country without some sort of civil authority: but, as men are seldom unanimous in the means of attaining their ends, so their difference in opinion as to government has produced various forms of it. According to Montesquieu, and most other writers, they may in general be reduced to three kinds: 1. The republican; 2. The monarchical; 3. The despotic. The first is that in which the people in a body, or only a part of the people, have the sovereign power; the second, where one alone governs, but by fixed established laws; but third, in the despotic government, one person alone, without law and without rule, directs every thing by his own will and caprice. See Law. On the subject of government at large, see Montesquieu's Spirit of Laws, l. 2, c. 1; Locke, ii. 129, &c. 4to. edit. 1768: Sidney on Government; Sir Thomas Smith de Repub. Ang. and Acherly's Britannic Constitution. As to the Gothic government, its original and faults, &c., see Montesquieu's L'Esprit des Loix, l. 11, c. 8. With respect to the feudal policy, how it limited government, see Feudal System.

GOUGE, *n.s.* Fr. A chisel having a round edge, for the cutting of such wood as is to be rounded or hollowed.

GOUGH (Richard), topographer and antiquary, was the son of an East India director, and born in Austin Friars, London, in 1735. Educated at home, his mother had printed a translation from the French of a history of the Bible, made by him when he was only eleven years old. At the age of fifteen Gough translated Fleury's works on the Manners of the Israelites. In 1752 he entered at Benet College, Cambridge, and during the time he remained at the university he laid the plan of his Anecdotes of British Topography, it was published in one volume 4to. in 1768, and reprinted with improvements in 2 vols. 1780. He left Cambridge without taking a degree, and engaged in no profession. He was a fellow of the Society of Antiquaries, and in the Archæologia, or Transactions of that Society, as well as in the Bibliotheca Topographica Britannica, and the Gentleman's Magazine, he published many communications. He also produced Sepulchral Monuments of Great Britain, 1786, 2 vols. folio; an enlarged edition of Camden's Britannia, 1789, 3 vols. folio; and one still more augmented in 4 vols. 1806; an Account of the Bedford Missal; and the History of Pleshey in Essex. He died at Enfield, February 20 1809, and bequeathed to the Bodleian library at Oxford his collection of books and manuscripts, relative to Saxon and Northern literature and to British topography.

GOUJET (Claude Peter), a French writer of some note, was the son of a tailor, and born at Paris in 1697. He was educated by the Jesuits; and on taking orders became a canon of the church of St. Jacques de l'Hôpital. His works are numerous, and display considerable erudition; the principal are—L'Histoire du College Royal de France, 12mo.; Hist. du Pontificat de Paul V., in which he is by no means favorable to the Jesuits; Les Vies des Saints, 2 vols. 4to.; Supplement to Moreri's Dictionary, displaying much industry but little judgment; De l'Etat des Sciences en France, 12mo.; Bibliotheque des Auteurs Ecclesiastiques du XVIII Siècle, 3 vols. 8vo.

GOULART (Simon), a minister of Geneva, born at Senlis in 1543, and one of the most indefatigable writers of his time. He made considerable additions to the 'Catalogue of Witnesses of the Truth' composed by Illyricus; and acquired a great reputation by his works: the principal of which are, 1. A translation of Seneca. 2. A collection of memorable histories. 3. A translation of St. Cyprian de Lapsis. 4. Several devotional and moral treatises. He died at Geneva in 1628.

GOUNVILLE (John Herauld), a French author, born in 1625, originally only a valet to the duke of Rochefoucault, who advanced him to several high offices. He wrote Memoirs, containing important anecdotes of the French ministers, from Mazarine to Colbert. He died in 1705, aged eighty.

GOUR, or Gaur, the ancient capital of Bengal, is situated in the district of Rajemal, a few miles south of the town of Maulda.

The ruins extend fifteen miles along the old banks of the Ganges, and are from two to three miles in breadth. Several villages stand on a part of its site; the remainder is covered with thick forests—the resort of tigers, and beasts of prey, or it has become arable land, the soil of which is largely mixed with brick-dust. The principal buildings are a mosque lined with black marble, elaborately wrought, and two gates of the citadel, which are grand and lofty. The bricks, which are of a most solid texture, are often carried away to Moorshedabad, Maulda, and other places.

No part of this site of Gour is nearer to the present bank of the Ganges than four miles and a half, and some parts, which were originally washed by that river, are, according to Mr. Hamilton, now twelve miles from it. A stream that runs past it communicates with its west side, and is navigable during the rainy season. On the east, and in some places within two miles, it has the Mahanuddy River which communicates with the Ganges, and is always navigable.

'Gaura, or, as it is commonly called, Bengali, is the language spoken in the provinces of which the ancient city of Gour was the capital. It still prevails in all the provinces of Bengal, excepting some frontier districts, but is spoken with the greatest purity in the eastern parts only. Although Gaura be the name of Bengal, yet the Brahmins, who bear that appellation, are not inhabitants of Bengal, but of Hindostan Proper. They reside chiefly in the province of Delhi, while the Brahmins of Bengal are avowed colonists from Kanoge. When Mahommed Bukhtyar Khilligee conquered Bengal, A. D. 1204, he established the then ancient city of Gour as the capital of his dominions. Rajah Lackmanyah, the last Hindoo sovereign whom he expelled.

held his court at Nuddea. In 1535 the emperor Hamayoon, when in pursuit of Shere Khan, the Patan (who afterwards expelled him from Hindostan), took Gour, then the capital of Bengal. Ferishta says, that the seat of government was afterwards removed to Taunda, or Taura, a few miles higher up, on account of the unhealthiness of the climate.' *Hamilton's East India Gazetteer.*

GOURD, *n. s.* } Fr. *gouhorde*. A plant.
GOURDINESS, *n. s.* } The fruit of some species are long, of others round, or bottle-shaped. A bottle, from old Fr. *gourt*.—Skinner. The large fruit so called is often scooped hollow, for the purpose of containing and carrying wine, and other liquors: from thence any leathern bottle grew to be called by the same name, and so the word is used by Chaucer. Gourdiness, a swelling in a horse's leg after a journey.

And wete ye—what? I have here in my *gourd*
A draught of win, ye of a ripe grape
* * * * * * *
* * * * * * *
To the Manciple he toke the *gourd* again,
And of that drinke the coke was wonder fain,
And thonked him in swiche wise as he coude.
Chaucer. The Manciples Tale.

But I will haste, and from each bough and brake,
Each plant and juiciest *gourd*, will pluck such choice
To entertain our angel guest.
Milton's Paradise Lost.

Gourd seeds abound so much in oil, that a sweet and pleasant one may be drawn from thence by expression; they are of the four greater cold seeds, and are used in emulsions. *Hill.*

GOURD, in botany. See CUCURBITA.
GOURD, BITTER. See CUCUMIS.
GOURD, ETHIOPIAN SOUR. See ADANSONIA.
GOURD TREE. See CRESCENTIA.

GOURNAY (Mary le Jars de) a celebrated French lady, was born at Paris in 1566. Losing her father, she was adopted by Montaigne while very young, who called her his daughter of alliance. She was well versed in the languages; and has been styled the 'French syren.' Her style however was stiff, and deformed by ancient phraseology. Her temper also was somewhat acrid; and she made herself many enemies. She published an edition of the Essays of her foster father, dedicated to cardinal Richelieu. Her own works were published in a quarto volume, under the title of Les Airs, ou les Presens de la Demoiselle de Gournai. She had a small pension from the French court, and died in 1645.

GOUSSET, a French protestant minister, born at Blois, in 1635. He left France on the revocation of the edict of Nantz, and went to Holland, where he became professor of Greek and theology at Groningen. He died there, in 1704. He wrote Commentarii Linguæ Hebraicæ, and several other works.

GOUT, *n. s.* }
GOUT'WORT, *n. s.* } Fr. *goute*; Ital., Span., and Port. *gotta, gota*, from Lat. *gutta*, a drop, from its being supposed to originate in humors of the joints. A periodical disease, attended with severe pain; an old word signifying drops, still used in Scotland; an affected word (for gout), implying taste; a herb, so named; the state of parts, or a constitution predisposed to the disease.
GOUT'Y, *adj.* }

One that's sick o' the *gout*, had rather
Groan so in perplexity, than be cured
By the sure physician death.
Shakspeare. Cymbeline.

I see thee still,
And on the blade o' the dudgeon *gouts* of blood,
Which was not so before. *Id. Macbeth.*

There dies not above one of a thousand of the *gout*, although I believe that more die *gouty*. *Graunt.*

Knots upon his *gouty* joints appear,
And chalk is in his crippled fingers found.
Dryden.

This very reverend lecher, quite worn out
With rheumatisms, and crippled with his *gout*,
Forgets what he in youthful times has done,
And swinges his own vices in his son. *Id.*

Catalogues serve for a direction to any one that has a *gout* for the like studies. *Woodward on Fossils.*

There are likewise other causes of blood-spitting; one is the settlement of a *gouty* matter in the substance of the lungs. *Blackmore.*

The *gout* is a disease which may affect any membraneous part, but commonly those which are at the greatest distance from the heart or the brain, where the motion of the fluids is the lowest, the resistance, friction, and stricture of the solid parts the greatest, and the sensation of pain, by the dilaceration of the nervous fibres, extreme. *Arbuthnot on Diet.*

Most commonly a *gouty* constitution is attended with great acuteness of parts, the nervous fibres, both in the brain and the other extremities, being delicate. *Id.*

Business would have carried my wife to Bath by this time, had she not been seized with a fit of the *gout* when she was ready to set out; but I hope this will not retard her many days. *Warburton.*

GOUT. See MEDICINE.

GOWER (John), one of the most ancient English poets, was contemporary with Chaucer, and his intimate friend. He studied the law, and was some time a member of the society of Lincoln's Inn. Some have asserted that he was a judge. In the first year of Henry IV. he became blind, which he laments in one of his Latin poems. He died in 1402; and was buried in St. Mary Overy's, which church he had rebuilt chiefly at his own expense, so that he must have lived in affluent circumstances. His tomb was magnificent, and curiously ornamented. It still remains, but has been repaired in later times. From the collar of SS round the neck of his effigies, which lies upon the tomb, it is supposed that he had been knighted. He wrote, 1. Speculum Meditantis, in French, in ten books. There were two copies of this in the Bodleian library. 2. Vox Clamantis, in Latin verse, in seven books. Preserved also in the Bodleian library, and in that of All-souls. It is a chronicle of the insurrection of the commons in the reign of Richard II. 3. Confessio Amantis; printed at Westminster by Caxton, in 1493, London 1532, 1545. It is a sort of poetical system of morality, interspersed with a variety of moral tales. 4. De rege Henrico IV.; printed in Chaucer's works. There are likewise several historical tracts, in MS. written by our author, which are to be found in different libraries; also some short poems printed in Chaucer's works.

GOWER'S HARBOUR, a bay on the south-west coast of New Ireland, five miles north of cape St. George. It is by Bougainville called Praslin

Bay (Baie de Praslin), and by Dampier St. George's Bay. Long. 150° 40′ E., lat. 4° 50′ S.

Gower's Island, so called by captain Carteret, an island in the eastern seas, called, by Monsieur Surville, Inattendue. It is of a figure resembling an arrow, and is low and covered with wood. Carteret could discover no anchorage. Long. 158° 56′ E., lat. 7° 56′ S.

GOWGATCHY, the name of two towns in Bengal.

GOWHATTY, the capital of Lower Assam, Hindostan, The surrounding district occupies an extent of hilly country on both banks of the Brahmapootra; and the hills on each side form a spacious amphitheatre, well fortified both by nature and by art. In the seventeenth century this place was the western frontier of Assam, all the country on this side being included in Kamroop. Gowhatty was taken by Aurungzebe in the year 1663. Long. 91° 46′ E., lat. 26° 10′ N.

GOWN, *n. s.* } Gown'ed, *adj.* } Gown'man, or Gown's'-man, *n. s.* } Teut. *gowne;* Welsh *gwn;* Ital. *gonna;* Fr. *gonnelle:* all probably from Gr. γονυ, genu, the knee: because originally a garment only reaching to the knees. An upper or loose garment of male or female; used in a particular sense for the ordinary outward garment of females and the professional dress of students and the different faculties: a dress of peace as distinct from war.

The benefices themselves are so mean in Irish counties, that they will not yield any competent maintenance for any honest minister, scarcely to buy him a *gown.* *Spenser on Ireland.*

A noble crew about them waited round
Of sage and sober peers, all gravely *gowned.*
Spenser.

If ever I said a loosebodied *gown,* sew me up in the skirts of it, and beat me to death with a bottom of brown thread; I said a *gown.* *Shakspeare.*

They make garments either short, as cloaks, or, as *gowns,* long to the ground. *Abbot.*

Girt in his Gabin *gown* the hero sat. *Dryden.*

In length of train descends her sweeping *gown,*
And by her graceful walk the queen of love is known.
Id.

He Mars deposed, and arms to *gowns* made yield;
Successful councils did him soon approve
As fit for close intrigues as open field. *Id.*

In velvet white as snow the troop was *gowned,*
The seams with sparkling emeralds set around. *Id.*

Let him with pedants
Pore out his life amongst the lazy *gownmen.*
Rowe.

I despise your new *gown,* 'till I see you dressed in it. *Pope.*

Thus will that whole bench, in an age or two, be composed of mean, fawning *gownmen,* dependants upon the court for a morsel of bread. *Swift.*

Yet not superior to her sex's cares,
The mode she fixes by the *gown* she wears;
Of silks and china she's the last appeal;
In these great points she loads the common weal.
Young.

If Mr. Onslow will lay aside his privilege, I will lay aside my *gown.* *Horne Tooke.*

The Gown is an ample sort of garment, worn over the ordinary clothes, hanging down to the feet. It is fashioned differently for ecclesiastics and for laymen. At Rome they gave the name toga virilis, i. e. the virile gown, to a plain kind o. gown which their youth assumed when arrived at puberty. This they particularly denominated prætexta. See Toga, Prætexta, &c. In some universities, physicians wear a scarlet gown. In the Sorbonne, the doctors always are in gowns and caps.

Gown is also taken in the general for civil magistracy, or the profession opposite to that of arms. In this sense it was that Cicero said, Cedant arma togæ.

GOWRAN, a borough and post town of Ireland, in the county of Kilkenny, three miles from Ballinabola castle, eight east of Kilkenny, and fifty-two from Dublin. It is governed by a portrieve, recorder, and town clerk. Here are the ruins of an old church, and the handsome seat of the late lord Clifden. Long. 7° 0′ W., lat. 52° 34′ N.

GOYEN (John Van), painter of landscapes, cattle, and sea pieces, was born at Leyden in 1596; and was instructed by Isaac Nicholai, and afterwards by Esaias Vandervelde, the most celebrated landscape painter of his time. Van Goyen soon rose into general esteem; and his works are more general throughout Europe than the works of any other master, as he possessed an uncommon readiness of hand and freedom of pencil. It was his practice to sketch the views of villages and towns on the banks of rivers or canals; of the sea-ports in the low countries; and sometimes of inland villages, where the scenes around them appeared picturesque. Those he afterwards used as subjects for his landscapes; enriching them with cattle, boats, and figures in character. He understood perspective, and the chiaro-scuro, which enabled him to give his pictures a strong and agreeable effect. He died in 1656, aged sixty.—His best pieces are generally marked with his name and the year; and his finished pictures will be for ever estimable. His pictures frequently have a grayish cast, occasioned by his using a color called Haerlem blue, then much approved but now disused, as it is apt to fade into that grayish tint. His best works are valued so highly in most parts of Europe, that they afford large prices, being ranked with the pictures of Teniers. They are not now easily procured, if undamaged, though his slighter performances are sufficiently common.

GOZZO, a rocky but fertile island of the Mediterranean, to the north-west of Malta, to which it is attached. It is extremely populous; its superficial extent being only thirty-seven square miles, while the inhabitants amount to above 13,000. It contains the town of St. Borgo, the fort of Gozzo, and six villages. The fort is said to occupy the site of an ancient town built by the Phœnicians or Greeks; there, are two smaller ones on the coast. This island was taken by the Turks in 1551, and attacked by them in vain in 1613, and 1709. The channel between it and Malta will admit with safety the largest men of war. The Fungus Melitœus, well known in the medical world, grows on a rock here. It is also asserted, that veins of gold and silver are to be found; as are cotton, corn, and all kinds of vegetables.

Gozzo or Gafda, an island near Candia, the

ancient Clauda, which St. Paul past on his way to Rome. To the west is Pulo Gozzo, or little Gozzo, a very small island. Long, 23° 46′ E., lat. 34° 48′ N.

GRAAF REYNET, the most eastern district in the territory of the Cape of Good Hope, extending from Stellenbosch and Drakenstein to Kaffre Land, about 250 miles in length and 160 in breadth, and containing a surface of 40,000 square miles. The occupation here is entirely grazing, and the inhabitants have frequent skirmishes with the neighbouring Kaffers and Bosjesmans. In the centre of the district is the drosdy or chief town, about 500 miles E. S. E. of Cape Town. See CAPE OF GOOD HOPE.

GRAAF (Regnier de), a celebrated physician, born at Schoonhaven, in Holland, in 1641. He studied physic in Prussia, and was educated at Leyden, where he acquired great honor by publishing a treatise De Succo Pancreatico. He also published three pieces upon the Organs of Generation, on which subject he had a controversy with Swammerdam. He died in 1673, aged thirty-two; and his works with his life prefixed were published at Leyden in 1677, in 8vo.

GRABE (John Ernest), a very learned writer in the beginning of the eighteenth century, born at Koningsberg in Prussia. He was educated in the Lutheran religion; but the reading of the fathers led him into doubts. He presented to the electorial consistory at Sambia in Prussia a memorial containing his doubts. The elector ordered three eminent divines to answer them. Their answers shook him in his resolution of embracing the Roman Catholic religion; and one of them, Spener, advised him to go England. He went; and king William III. gave him a pension, which was continued by queen Anne. He was ordained a priest of the church of England, and honored with the degree of D. D. by the university of Oxford; upon which occasion Dr. George Smalridge pronounced two Latin orations, which were afterwards printed. He wrote, 1. Specilegium S. S. Patrum, ut et Hereticorum, sæculi post Christum natum, 8vo. 2. An edition of the Septuagint, from the Alexandrian MS. in St. James's library. 3. Notes on Justin, &c.; and other works, which are much and justly esteemed.

GRAB'BLE, *v. n.* & *v. a.* Belg. *grabbelen.* See GRAPPLE. To grope, feel eagerly with the hands: Dr. Johnson says after Ainsworth 'to lie prostrate on the ground,' but supplies no instance of the use of the word.

My blood chills about my heart at the thought of these rogues, with their bloody hands *grabbling* in my guts, and pulling out my very entrails.
Arbuthnot's John Bull.

GRACCHUS (Sempronius), the father of Tiberius and Caius. He was proconsul in Spain, subdued the Celtiberians, and rebuilt or repaired Gracchuris.

GRACCHUS (Tiberius and Caius). Tiberius, being tribune of the Roman people, demanded in their name the execution of the Agrarian law; by which all persons possessing above 200 acres of land were to be deprived of the surplus, for the benefit of the poor citizens, amongst whom an equal distribution of them was to be made. Having carried his plan into execution by violent measures, he fell a victim to his zeal, being assassinated, A. A. C. 133. Caius his brother, pursuing the same steps, was killed by the consul Opimius, A. A. C. 121. See ROME.

GRACIAS A DIOS, a city of Honduras, situated on a river which communicates with the bay of that name. It has two convents; and is 140 miles east of Guatimala. Long. 90° 6′ W., lat. 14° 30′ N. It is also the name of a point of land on the coast of Costa Rica.

GRACE, *n. s.* & *v. a.*
GRACED, *adj.*
GRACE'CUP, *n. s.*
GRACE'FUL, *adj.*
GRACE'FULNESS, *n. s.*
GRACE'LESS, *adj.*
GRA'CES, *n. s.*
GRA'CIOUS, *adj.*
GRA'CIOUSLY, *adv.*
GRA'CIOUSNESS, *n. s.*

Fr. *grace;* Belgic. *gracie;* Erse. *graace;* Span. *gracia;* Latin *gratia,* of Greek χαρις (Minsheu). Favor; kindness; unmerited goodness; benevolent feeling; agreeable form: applied also to various expressions or effects of favor or goodness, as mercy, pardon, privilege: and used emphatically, in a theological sense, for the unmerited favor of God and its consequences. To grace is to favor, adorn, or dignify: the graces were female goddesses supposed to bestow beauty: gracious is favorable, benignant, merciful. The meaning of the other compounds appears plain.

For what *grace* is it if ye synnen and ben buffeted and suffren? but if ye doon well and suffres pacientli, this is *grace* anentis god, for to this thing ye ben clepid. *Wiclif.* 1 *Peter* 2.

My hosbond had a legend of his wif
Eriphile, that for an ouche of gold
Hath prively unto the Greeks told
Whir that hire hosbond hidde him in a place,
For which he had at Thebes sory *grace.*
Chaucer. Cant. Tales.

Where justice grows, there grows the greater *grace,*
The which doth quench the brand of hellish smart.
Spenser.

Doctrine is much more profitable and *gracious* by example than by rule. *Id.*

This *graceless* man, for furtherance of his guile,
Did court the handmaid of my lady dear. *Id.*

This they study, this they practise, this they *grace* with a wanton superfluity of wit. *Hooker.*

It doth grieve me, that things of principal excellency should be thus bitten at by men whom God hath endued with *graces* both of wit and learning, for better purposes. *Id.*

The grievous abuse which hath been of councils, should rather cause men to study how so *gracious* a thing may again be reduced to that first perfection. *Id.*

He might at his pleasure *grace* or disgrace whom he would in court. *Knolles.*

To some kind of men,
Their *graces* serve them but as enemies.
Shakspeare.

In his own *grace* he doth exalt himself
More than in your advancement. *Id.*

I do not think a braver gentleman,
More daring, or more bold is now alive,
To *grace* this latter age with noble deeds. *Id.*

Here come I from our princely general
To know your griefs; to tell you from his *grace,*
That he will give you audience. *Id. Henry IV.*

Your soldiers use him as the *grace* 'fore meat,
Their talk at table, and their thanks at end.
Shakspeare.

O, mickle is the powerful *grace* that lies
In plants, herbs, stones, and their true qualities.
Id.

The king-becoming *graces*,
As justice, verity, temperance, stableness,
Devotion, patience, courage, fortitude,
I have no relish of them. *Id. Macbeth.*

Kings are no less unhappy, their issue not being *gracious*, than they are in losing them when they have approved their virtues. *Id. Winter's Tale.*

Whose hap shall be to have her,
Will not so *graceless* be, to be ingrate.
Shakspeare.

By their hands this *grace* of kings must die,
If hell and treason hold their promises. *Id.*

He writes
How happily he lives, how well beloved,
And daily *graced* by the emperor. *Id.*

Our women's names are more *gracious* than their Rutilia, that is, red head. *Camden.*

High and mighty king, your *grace*, and those your nobles here present, may be pleased to bow your ears.
Bacon's Henry VII.

There is due from the judge to the advocate some commendation and *gracing*, where causes are well handled. *Bacon.*

Unblamed Ulysses' house,
In which I finde receipt so *gracious*.
Chapman.

Who would have looked for tears from Esau? Or dare trust tears, when he sees them fall from so *grace less* eyes? *Bp. Hall.*

The desire of more and more rises by a natural *gradation* to most, and after that to all. *L'Estrange.*

He received all the *graces* and degrees, the proctorship and the doctorship could be obtained there.
Clarendon.

The *graciousness* and temper of this answer made no impression on them. *Id.*

Goring, who was now general of the horse, was no more *gracious* to prince Rupert than Wilmot had been. *Id.*

Yet those removed,
Such *grace* shall one just man find in his sight,
That he relents, not to blot out mankind. *Milton*

Prevenient *grace* descending had removed
The stony from their hearts, and made new flesh
Regenerate grow instead. *Id.*

If the highest love in no base person may aspire to *grace*, then may I hope your beauty will not be without pity. *Sidney.*

He saw this gentleman, one of the properest and best *graced* men that ever I saw, being of a middle age and a mean stature. *Id.*

Within the church, in the publick profession and external communion thereof, are contained persons truly good and sanctified, and hereafter saved; and together with them other persons void of all saving *grace*, and hereafter to be damned. *Pearson.*

Noble pity held
His hand a while, and to their choice gave space
Which they would prove, his valour or his *grace*.
Waller.

Have I reason or good *grace* in what I do?
Temple.

His neck, his hands, his shoulders, and his breast,
Did next in *gracefulness* and beauty stand
To breathing figures. *Dryden's Ovid.*

Rich crowns were on their royal scutcheons placed,
With sapphires, diamonds, and with rubies *graced*.
Dryden.

Or each, or all, may win a lady's *grace*;
Then either of you knights may well deserve
A princess born. *Id. Fables.*

None of us, who now your *grace* implore,
But held the rank of sovereign queen before.
Dryden.

His testimonies he *graciously* confirmed, that it was the best of all my tragedies. *Id.*

He heard my vows and *graciously* decreed
My grounds to be restored, my former flocks to feed.
Id.

When the guests withdrew,
Their courteous host saluting all the crew,
Regardless passed her o'er, nor *graced* with kind adieu. *Id.*

Set all things in their own peculiar place,
And know that order is the greatest *grace*. *Id.*

The flower which lasts for little space,
A short lived good, and an uncertain *grace*. *Id.*

To write and speak correctly gives a *grace*, and gains a favourable attention to what one has to say.
Locke.

Common sense and reason could not but tell them, that the good and *gracious* God could not be pleased, nor consequently worshipped, with any thing barbarous or cruel. *South.*

I should therefore esteem it great favour and *grace*,
Would you be so kind as go in my place. *Prior.*

From now reveal
A *gracious* beam of light; from now inspire
My tongue to sing, my hand to touch the lyre.
Id.

The *grace-cup* served, the cloth away,
Jove thought it time to show his play *Id.*

This forehead, where your verse has said
The loves delighted and the *graces* played. *Id.*

The *graces* of his religion prepare him for the most useful discharge of every relation in life.
Rogers.

With secret joy she sees her little race
Hang on her breast and her small cottage *grace*.
Gay.

Now deep in Taylor and the book of Martyrs,
Now drinking citron with his *grace* and Chartres.
Pope.

To theatres, and to rehearsal throng,
And all our *grace* at table is a song. *Id.*

For modes of faith let *graceless* zealots fight,
His can't be wrong whose life is in the right *Id.*

By both his parents of descent divine;
Great Jove and Phœbus *graced* his nobler line.
Id.

Though triumphs were to generals only due,
Crowns were reserved to *grace* the soldiers too.
Id.

While *grace* is saying after meat, do you and your brethren take the chairs from behind the company.
Swift.

Through nature and through art she ranged,
And *gracefully* her subject changed. *Id.*

If hearers are amazed from whence
Proceeds that fund of wit and sense,
Which, though her modesty would shroud,
Breaks like the sun behind a cloud;
While *gracefulness* its art conceals,
And yet through every motion steals. *Id.*

If her majesty would but *graciously* be pleased to think a hardship of this nature worthy her royal consideration. *Id.*

Walking is the mode or manner of man, or of a beast; but walking *gracefully* implies a manner or mode superadded to that action. *Watts's Logick.*

Graceful to sight, and elegant to thought,
The great are vanquished, and the wise are taught
Young.

One lilac only, with a statelier *grace*,
Presumed to claim the oaks and cedar's place;

And, looking round him with a monarch's care,
Spread his exalted boughs to wave in air.
Harte.

But now let other themes our care engage,
For lo with modest yet majestic *grace*,
To curb imagination's lawless rage
And from within the cherished heart to brace,
Philosophy appears. *Beattie.*

Such was Zulicka—such around her shone
The nameless charms unmarked by her alone—
The light of love—the purity of *grace*
The mind, the music breathing from her face;
The heart whose softness harmonised the whole
And oh! that eye was in itself a soul.
Byron. The Bride of Abydos.

GRACES, GRATIÆ, or Charities, in the heathen theology, were fabulous deities, three in number, who attended on Venus. Their names are Aglaia, Thalia, and Euphrosyne; i. e. shining, flourishing, and gay; or, according to some authors, Pasithea, Euphrosyne, and Ægiale. They were said by some to be the daughters of Jupiter, by Eurynome the daughter of Oceanus; and by others, of Bacchus and Venus.—Some will have the Graces to have been four; and make them the same with the Horæ, Hours, or rather with the four seasons of the year. A marble in the king of Prussia's cabinet represents the three Graces in the usual manner, with a fourth seated and covered with a large veil, with the words underneath, Ad Sorores IIII. But this group we may understand to be the three Graces, and Venus, who was their sister, being daughter of Jupiter by Dione. The Graces are always supposed to have hold of each other's hands, and never parted. They were painted naked, to show that the Graces borrow nothing from art, and that they have no other beauties but those of nature. Yet in the first ages they were not represented naked, as appears from Pausanias (lib. vi. and ix.), who describes their temple and statues. They were of wood, all but their head, feet, and hands, which were white marble. Their robe or gown was gilt; one of them held in her hand a rose, another a dye, and the third a sprig of myrtle.

GRACULA, the grakle, in ornithology, a genus belonging to the order of picæ. The bill is convex, cultrated, and bare at the point; the tongue is not cloven, but is fleshy and sharpish; it has three toes before and one behind. The most remarkable species are the following:—

G. barita, the boat-tailed grakle, is about the size of a cuckow. The bill is sharp, black, and an inch and a half in length; the general color of the plumage is black, with a gloss of purple, especially on the upper parts; the legs and claws are black, the latter hooked. There is a singularity in the folding up of the tail-feathers, which, instead of forming a plain surface at top, sink into a hollow like a deep gutter. It always carries its tail expanded when on the ground, folding it up in the above singular manner only when perched or flying. It inhabits Jamaica, and feeds on maize, beetles, and other insects, as well as on the fruit of the banana. It is likewise common in North America. They breed in swamps, and migrate in September.

G. cristatella, the Chinese starling, is a little bigger than a blackbird. The bill is yellow or orange: and the general color of the plumage blackish, with a tinge of blue; the legs are dull yellow. These birds talk and whistle very well, and are common in China, where they are much esteemed; and the figures of them are seen frequently in Chinese paintings. Their food is rice, insects, worms, and such like.

G. quiscula, the purple jack-daw, or Barbadoes blackbird, is about the size of a blackbird, and is black, but most beautifully and richly glossed with purple, especially on the head and neck. The female is wholly brown, but deepest on the wings and tail. This species inhabits Jamaica, Carolina, Mexico, and other parts of North America. These birds generally feed on maize, whence they are named maize thieves; but this is not their only food. In spring, soon after the maize seed is put into the ground, they scratch it up again; and, as soon as the leaf comes out, they take it up with their bills, root and all; but when it is ripe they do still more damage, for at that time they come by thousands, and are so bold, that if disturbed in one part of a field they only go to another. In New Jersey and Pennsylvania 3*d*. per dozen was once given for the dead birds, and by means of this premium they were nearly extirpated in 1750; when the persecution of them was abated on account of the great increase of worms which had taken place in the meadows, and which in the preceding year had left so little hay in New England as to occasion an importation from other parts. The grakles were therefore again tolerated, as it was observed that they fed on these worms till the maize was ripe. These birds build in trees. They pass the winter in swamps, which are quite overgrown with wood, only appearing in mild weather; and, after the maize is got in, are content to feed on the aquatic tare-grass, and if pressed by hunger, buck-wheat and oats, &c.: they are said also to destroy that pernicious insect the bruchus pisi. Their note is pretty agreeable; but their flesh is not good to eat.

G. religiosa, the smaller grakle, or Indian stare, is about the size of a blackbird, the bill an inch and a half long, and of an orange color. The general color of the plumage is black, glossed with violet, purple, and green, in different reflections of light: on the quills is a bar of white: the feathers and legs are orange yellow, and the claws of a pale brown. This species, which is found in several parts of the East Indies, in the Isle of Hainan, and almost every isle beyond the Ganges, is remarkable for whistling, singing, and talking well, much better and more distinct than any of the parrot genus. Its food is of the vegetable kind. Those kept in this climate are observed to be very fond of cherries and grapes: if cherries are offered to one, and it does not immediately get them, it cries and whines like a child, till it has obtained them. It is very tame and familiar.

GRADE, *n. s.*
GRADA'TION, *n. s.*
GRAD'ATORY, *n. s.*
GRA'DIENT, *adj.*
GRAD'UAL, *adj.* & *n. s.*
GRADUAL'ITY, *n. s.*
GRAD'UALLY, *adv.*
GRAD'UATE, *v. a.* & *n. s.*
GRADUA'TION, *n. s.*

Fr. *graduer*; Lat. *gradus*, a step, from *gradior*. The primary meaning is gentle progression step by step; and figuratively to advance by degrees; to dignify with a

degree in the university; to mark with degrees as a thermometer; to raise higher in the scale of metals; to heighten and improve: an academician who has taken his degree; steps from cloisters into the church are called the graduatory.

Ther nis no thing in *gree* superlatif
(As saith Senek) above an humble wif.
Chaucer. The Merchantes Tale.

Concerning columns and their adjuncts, architects make such a noise, as if the terms of architraves, frizes, and cornices, were enough to *graduate* a master of this art. *Wotton.*

John Tregonwel, *graduated* a doctor, and dubbed a knight, did good service.
Carew's Survey of Cornwall.

Amongst those *gradient* automata, that iron spider is especially remarkable, which, being but of an ordinary bigness, did creep up and down as if it had been alive. *Wilkins.*

Nobler birth
Of creatures animate with *gradual* life,
Of growth, sense, reason, all summed up in man.
Milton.

Of greater repugnancy unto reason is that which he delivers concerning its *graduation*, that heated in fire, and often extinguished in oyl of mars or iron, the loadstone acquires an ability to extract a nail fastened in a wall. *Browne.*

This some ascribe unto the mixture of the elements, others to the *graduality* of opacity and light. *Id.*

Not only vitriol is a cause of blackness, but the salts of natural bodies; and dyers advance and *graduate* their colours with salts. *Id. Vulgar Errours.*

The tincture was capable to transmute or *graduate* as much silver as equalled in weight that gold.
Boyle.

Before the *gradual* prostrate they adored,
The pavement kissed, and thus the saint implored.
Dryden.

The *graduation* of the parts of the universe is likewise necessary to the perfection of the whole. *Grew.*

Men still suppose a *gradual* natural progress of things; as that, from great things and persons should grow greater, 'till at length, by many steps and ascents, they come to be at greatest. *South.*

Human creatures are able to bear air of much greater density in diving, and of much less upon the tops of mountains, provided the changes be made *gradually.* *Arbuthnot.*

The places were marked where the spirits stood at the severest cold and greatest heat, and according to these observations he *graduates* his thermometers.
Derham.

That there is a *gradation* I doubt not, upwards, as our senses inform us that there is one downwards. But such a *gradation*, by which finite approaches nearer and nearer to infinite, is inconceivable.
Bolingbroke.

The author of our being weans us *gradually* from our fondness of life the nearer we approach towards the end of it. *Swift.*

The best of men have ever loved repose;
They hate to mingle in the filthy fray
Where the soul sours, and *gradual* rancour grows
Imbittered more from peevish day to day. *Thomson.*

All up the craggy cliffs that towered to heaven
Green waved the murmuring pines on every side,
Save where opening to the beam of even
A dale sloped *gradual* to the valley wide. *Beattie.*

——— His manly brow
Consents to death, but conquers agony,
And his drooped head sinks *gradually* low.
Byron. Childe Harold.

GRÆCIA, Magna, in ancient geography, part of the outermost coast of Italy, originally inhabited by Greeks. See Italy.

GRÆME (John), a Scottish poet, born at Carnwath in Lanarkshire, in 1748, whose posthumous poems have been much admired. His father was a farmer, and he was taught grammar at Lanark, under Mr. R. Thomson, brother-in-law of the celebrated poet of that name, and his progress was rapid. In 1766 he went to the university of Edinburgh, where he soon surpassed the most industrious. He also acquired considerable knowledge in mathematics, natural philosophy, metaphysics, and the belles lettres. In 1769 he gave the first specimens of his poetical genius. In 1770 he was admitted into the theological class; but the fatal disease, which cut him off, now began to appear in the form of a gradual decline, and soon ended in a deep consumption. He died July 26th, 1772. His poems, consisting of fifty elegies and other miscellaneous pieces, were collected and printed at Edinburgh in 1773, in 8vo.

GRÆVIUS (John George), one of the most learned writers in the seventeenth century. In the twenth-fourth year of his age the elector of Brandenburg made him professor at Duisbourg. In 1658 he was invited to Deventer to succeed his former master Gronovius. In 1661 he was appointed professor of eloquence at Utrecht; and, in 1673, professor of politics and history. He fixed here, and refused several advantageous offers. He had the satisfaction to be sought after by divers princes, and to see several of them come from Germany to study under him. He died in 1703, aged seventy-one. His Thesaurus Antiquitatum et Historiarum Italiæ, &c., and other works are well known.

GRAFF, *n. s.* A ditch; a moat. See Grave.

Though the fortifications were not regular, yet the walls were good, and the *graff* broad and deep.
Clarendon.

Graff, or
Graft, *n. s.*, *v. a.* & *v. n.*
Grafter, *n. s.*
} Sax. ȝnæfꝛ; Fr. *greffe*, *greffer*. A small branch inserted into the stock of another tree, and nourished by its sap, but bearing its own fruit; a young cion: to propagate, by insertion into a body, to which it did not originally belong; to practise incision: used in a figurative sense with respect to the heart, and implying the communication of dispositions which are not natural to it.

And they also, if they bide not still in unbelief, shall be *graffed* in; for God is able to *graff* them in again. *Romans.*

Graft in our hearts the love of thy name.
Common Prayer.

In March is good *graffing* the skilful do know,
So long as the wind in the East do not blow:
From moon being changed, 'till past be the prime,
For *graffing* and cropping is very good time.
Tusser.

We've some old crab-trees here at home, that will not
Be *grafted* to your relish. *Shakspeare. Coriolanus.*

The noble isle doth want her proper limbs;
Her royal stock *graft* with ignoble plants. *Id.*

God gave unto man all kinds of seeds and *graffs* of life: as the vegetative life of plants, the sensual of beasts, the rational of man, and the intellectual of angels. *Raleigh.*

To have fruit in greater plenty the way is to *graft*, not only upon young stocks, but upon divers boughs

of an old tree; for they will bear great numbers of fruit; whereas if you *graft* but upon one stock, the tree can bear but few. *Bacon.*

It is likely, that as in fruit-trees the *graft* maketh a greater fruit, so in trees that bear no fruit it will make the greater leaves. *Id.*

With his pruning hook disjoin
Unbearing branches from their head,
And *graft* more happy in their stead.
Dryden.

These are the Italian names which fate will join
With ours, and *graff* upon the Trojan line. *Id.*

Now let me *graff* my pears, and prune the vine.
Id.

His growth is but a wild and fruitless plant;
I'll cut his barren branches to the stock,
And *graft* you on to bear. *Id. Don Sebastian.*

'Tis usual now an inmate *graff* to see
With insolence invade a foreign tree.
Id. Virgil.

If you cover the top with clay and horse-dung, in the same manner as you do a *graff*, it will help to heal the sooner. *Mort.*

May one kind grave unite each hapless name,
And *graft* my love immortal on thy fame. *Pope.*

Now the cleft rind inserted *graffs* receives,
And yields an offspring more than nature gives.
Id.

This resolution against any peace with Spain is a new incident *grafted* upon the original quarrel, by the intrigues of a faction among us. *Swift.*

GRAFIGNY (Frances), a French lady, authoress of the celebrated Peruvian Letters, which have been translated into all the languages in Europe. She was born in 1693, and married to the duke of Lorrain's chamberlain: after whose death she went to Paris with Mademoiselle De Guise, where her talents were much admired. She died at Paris in 1758, aged sixty-five.

GRAFTING, or ENGRAFTING, in gardening, is the taking a shoot from one tree and inserting it into another, in such a manner, that both may unite close and become one tree. By the ancient writers on husbandry and gardening, this operation is called incision, to distinguish it from inoculation or budding, which they call inserere oculos.

The grafts, or cions, with which the grafting is effected, are young shoots of last summer's growth; for they must not be more than one year, and such as grow on the outside branches, and robust but moderate shooters; such also as are firm and well-ripened should always be chosen from healthful trees: observing, that the middle part of each shoot is always the best graft, cut at the time of grafting to five or six inches in length, or so as to have four or five good buds; but should be preserved at full length till grafting time, and then prepared as follows:—They should be cut from the trees in February, in mild weather, before the buds begin to swell, or advance much for shooting: in collecting them choose such as have not made lateral or side shoots; cut them off at full length; and, if they are not to be used as soon as they are collected, lay their lower ends in some dry earth in a warm border till grafting time; and, if severe weather should happen, cover them with dry litter.

The season for performing the operation of grafting is February and March. When performed in February, it is generally most successful, especially for cherries, plums, and pears; but March is best adapted for apples.

There are different methods of grafting practised; termed whip-grafting, cleft-grafting, crown-grafting, cheek-grafting, side-grafting, root-grafting, and grafting by approach, or inarching: but the first two are most commonly used; and whip-grafting most of all, as being most expeditious and successful. 1. Cheek-grafting. Cut the head of the stock off horizontally, and pare the top smooth; then cut one side sloping one and a half or two inches deep, and cut the lower part of the graft sloping the same length, making a sort of shoulder at top of the sloped part. Then place it upon the sloped part of the stock, resting the shoulder upon the crown of it: bind the parts closely together with a string of bass, bringing it in a neat manner several times round the stock and graft; then clay the whole over nearly an inch thick on every side, from about half an inch or more below the bottom of the graft, to an inch over the top of the stock, finishing the whole coat of clay in a kind of oval globular form, rather longwise, up and down, closing it effectually about the cion, and every part, so as no sun, wind, or wet, may penetrate, to prevent which is the whole intention of claying. Examine it now and then, to see if it any where cracks or falls off, and, if it does, it must be instantly repaired with fresh clay. 2. Cleft-grafting is so called because the stock being large is cleft or slit down the middle for the reception of the graft; and is performed upon stocks from about one to two inches diameter. First, with a strong knife cut off the head of the stock; or, if the stock is very large, it may be headed with a saw; and cut one side sloping upwards about an inch and a half to the top; then proceed with a strong knife, or chisel, to cleave the stock at top, cross-way the slope, fixing the knife towards the back of the slope, and strike it with a mallet, so as to cleave the stock about two inches, or long enough to admit the graft, keeping it open with the chisel; this done, prepare the cion, cutting it to such length as to leave four or five eyes, the lower part of which being sloped on each side, like a wedge, one and a half or two inches long, making one side to a thin edge, the other much thicker, leaving the rind thereon, which side must be placed outward in the stock; the cion being thus formed, and the cleft in the stock being kept open with the chisel, place the graft therein at the back of the stock, the thickest side outward, placing the whole cut part down into the cleft of the stock, making the rind of the stock and graft join exactly; then, removing the grafting chisel, each side of the cleft will closely squeeze the graft so as to hold it fast; it is then to be bound with a ligature of bass, and clayed over, as directed above, leaving three or four eyes of the cions uncovered. If it be intended to graft any large stocks or branches by this method, two or more grafts may be inserted in each. In this case the head must be cut off horizontally, making no slope on the side, but smooth the top; then cleave it quite a-cross, and place a graft on each side, as the stock may be cleft in two places, and insert two grafts in each cleft; they are thus to be tied and clayed. This method

of grafting may be performed upon the branches of bearing trees, when intended either to renew the wood, or change the sort of fruit. Towards the end of May, or the beginning of June, the junction of the graft and stock in either method will be effectually formed, and the graft begin to shoot, when the clay may be taken off, and, in a fortnight or three weeks after, the bandages likewise.

3. Crown-grafting is commonly practised upon such stocks as are too large to cleave, and is often performed upon the large branches of apple and pear trees, &c., that already bear fruit, when it is intended to change the sorts, or renew the tree with fresh-bearing wood. It is termed crown-grafting, because the stock or branch being headed down, several grafts are inserted at top all around betwixt the wood and bark, so as to give it a crown-like appearance. This kind of grafting should not be performed until March, or early in April; for then the sap being in motion, renders the bark and wood of the stock much easier to be separated for the admission of the graft. The manner of performing it is this: First, cut off the head of the stock or branch, with a saw, horizontally, and pare the top smooth; then having the grafts, cut one side of each flat, and somewhat sloping, an inch and a half, forming a sort of shoulder at top of the slope to rest upon the crown of the stock; and then raising the rind of the stock with a wedge, so as to admit the cion between that and the wood two inches down, place the graft with the flat side next the wood, thrusting it down far enough for the shoulder to rest upon the top of the stock; and in this manner may be put three, four, five, or more grafts, into one large stock or branch. When the grafts are thus inserted, let the whole be tied tight and well clayed: but leave two or three eyes of each graft uncovered, and raise the clay an inch above the top of the stock, so as to throw the wet quickly off, without lodging about the grafted parts, which would ruin the whole. Crown-grafting may also be performed, by making several clefts in the crown of the stock, and inserting the grafts round the top of the clefts. The grafts will be pretty well united with the stock, and exhibit a state of growth, by the end of May or beginning of June, and the clay may then be taken away. The trees grafted by this method succeed extremely well; but, for the first two or three years, have this inconvenience attending them, that they are liable to be blown out of the stock by violent winds; which must be remedied by tying long sticks to the body of the stock or branch, and tying each graft up to one of the sticks.

4. Root-grafting is performed by whip-grafting cions upon pieces of the root of any tree of the same genus, and planting the root where it is to remain. It will take root, draw nourishment, and feed the graft.

5. Side-grafting is by inserting grafts into the sides of the branches without heading them down; and may be practised upon trees to fill up any vacancy, or for the purpose of variety, to have several sorts of apples, pears, plums, &c., upon the same tree. It is performed thus: Fix upon such parts of the branches where wood is wanted to furnish the head or any part of the tree; there slope off the bark and a little of the wood, and cut the lower end of the grafts to fit the part as nearly as possible; then join them to the branch, and tie them with bass, and clay them over.

6. Whip-grafting is always performed upon small stocks, from about the size of a goose-quill to half an inch, or a little more or less, in diameter; but the nearer the stock and graft approach in size the better. It is called whip-grafting, because the grafts and stocks, being nearly of a size, are sloped on one side, to fit each other, and tied together in the manner of whips. The method is as follows: Cut off the head of the stock at some clear smooth part; then cut one side sloping upward, about an inch and a half or nearly two inches in length, and make a notch or small slit near the upper part of the slope downwards, about half an inch long, to receive the tongue of the cion; then prepare the cion, cutting it to five or six inches in length, forming the lower end also in a sloping manner, so as exactly to fit the sloped part of the stock, as if cut from the same place, that the rinds of both may join evenly in every part; and make a slit so as to form a sort of tongue to fit the slit made in the slope of the stock; then place the graft, inserting the tongue of it into the slit of the stock, applying the parts as evenly and closely as possible; and immediately tie the parts together and cover them with clay, as above directed. This sort of grafting may also be performed, if necessary, upon the young shoots of any bearing tree, if intended to alter the sorts of fruits, or have more than one sort on the same tree. By the middle or end of May the grafts will be well united with the stock, as will be evident by the shooting of the graft; then the clay should be wholly taken away; but suffer the bass bandage to remain some time longer, until the united parts seem to swell and be too much confined by the ligature; then take it wholly off.

7. Grafting by approach, or inarching, is, when the stocks designed to be grafted, and the tree from which you intend to take the graft, either grow so near, or can be placed so near together, that the branch or graft may be made to approach the stock, without separating it from the tree, till after its union or junction with the stock; so that the graft being bent to the stock, they approach and form a sort of arch; whence the names. Being a sure method, it is commonly practised upon such trees as are with difficulty made to succeed by any of the other methods. When intended to propagate any other kind of tree or shrub by this method of grafting, if the tree, &c., is of the hardy kind, and growing in the full ground, a proper quantity of young plants for stocks must be set round it; and, when grown of a proper height, the work of inarching must be performed; or if the branch of the tree designed to be grafted from are too high for the stocks, in that case stocks must be planted in pots, and a slight stage must be erected around the tree, of the due height to reach the branches, and the pots containing the stocks must be placed upon the stage. This method of grafting is sometimes performed with the head of the stock cu-

off, and sometimes with the head left on till the graft is united with the stock; though, by previously heading the stock, the work is much easier performed; and, having no top, its whole effort will be directed to the nourishment of the graft. Having the stocks properly placed, either planted in the ground or in pots around the tree to be propagated, then make the most convenient branches approach the stock, and mark on the body of the branches the parts where they will most easily join to the stock, and in those parts of each branch pare away the bark and part of the wood two or three inches in length, and in the same manner pare the stock in the proper place for the junction of the graft; then make a slit upwards in the branch, so as to form a sort of tongue, and make a slit downwards in the stock to admit it; let the parts be then joined, slipping the tongue of the graft into the slit of the stock, making the whole join in an exact manner, and tie them closely together with bass, and afterwards cover the whole with a due quantity of clay, as in the other methods. After this, let a stout stake be fixed for the support of each graft; to which let that part of the stock and graft be fastened which is necessary to prevent their being disjoined by the wind. The operation being performed in spring, let them remain in that position about four months, when they will be united, and the graft may then be separated from the mother tree. In doing this, be careful to perform it with a steady hand, so as not to loosen or break out the graft, sloping it off downwards close to the stock; and if the head of the stock was not cut down at the time of grafting, it must now be done close to the graft, and the old clay and bandage must also be cleared away, and replaced with new, to remain a few weeks longer. If the grafts are not firmly united with the stock, in the period above-mentioned, they must remain another year till autumn, before the grafts are separated from the parent tree. By this kind of grafting may be raised almost any kind of tree or shrub, which is often done by way of curiosity, to ingraft a fruit-bearing branch of a fruit-tree upon any common stock of the same genus, whereby a new tree bearing fruit is raised in a few months. This is sometimes practised upon orange and lemon trees, &c., by grafting bearing branches of a fruit-tree upon any common stocks raised from the kernels of any of the same kind of fruit, or into branches of each other, so as to have oranges, lemons, and citrons, all on the same tree.

Grafting has been practised from the most remote antiquity; but its origin and invention have been differently related by naturalists. Theophrastus tells us, that a bird, having swallowed a fruit whole, cast it forth into a cleft or cavity of a rotten tree; where mixing with some of the putrified parts of the wood, and being washed with the rains, it budded, and produced within this tree another tree of a different kind. Pliny says that a countryman, wishing to make a palisade in his grounds that it might endure the longer, filled up and strengthened the bottom of the palisade by running or wattling it with the trunks of ivy. The effect of this was, that the stakes of the palisades, taking root, became engrafted with the trunks and produced large trees; which suggested to the husbandman the art of engrafting. The use of grafting is to propagate any curious sorts of fruits; which cannot be done with certainty by any other method: for as all the good fruits have been accidentally obtained from seeds, so the seeds of these, when sown, will many of them degenerate, and produce such fruit as is not worth the cultivating; but, when shoots are taken from such trees as produce good fruit, these will never alter from their kind, whatever be their stock. The reason or philosophy of engrafting is somewhat obscure; but the effect is ordinarily attributed to the diversity of the pores or ducts of the graft from those of the stock, which change the figure of the particles of the juices in passing through them to the rest of the tree. Mr. Bradley, from some observations of Agricola, suggests, that the stock grafted on is only to be considered as a fund of vegetable matter, which is to be filtered through the cion, and digested, and brought to maturity, as the time of growth in the vessels of the cion directs. A cion, therefore, of one kind, grafted on a tree of another, may be rather said to take root in the tree it is grafted in, than to unite itself with it; for it is visible that the cion preserves its natural purity, though it be fed and nourished by a mere crab; which is, without doubt, occasioned by the difference of the vessels in the cion from those of the stock: so that grafting may be justly compared to planting. But the natural juices of the earth, by their secretion and communication in passing through the roots, &c., before they arrive at the cion, must doubtless arrive there half elaborated and concocted; and so disposed for a more easy, plentiful, and perfect assimilation and nutrition; whence the cion must necessarily grow and thrive better and faster than if it were put immediately in the ground.

Many have talked of changing of species, or producing mixed fruits, by engrafting one tree on another of the same class; but, as the graft carries the juices from the stock to the pulp of the fruit, there is little hope of succeeding in such an expectation by ever so many repeated grafts; but if, after changing the graft and stock several times, you set the seed of the fruit produced on the graft in a good mold, it is possible that a change may happen, and a new mixed plant may be produced. Thus the almond and peach may, by many changes in the graftings, and by interrations of the stones of the peaches, and of the shells of the almonds, and by teribrations of the stem and the root here and there, alter their nature so much, that the coat or pulp of the almond may approach to the nature of the peach, and the peach may have its kernel enlarged into a kind of almond; and, on the same principle, the curious gardener may produce many such mixed kinds. M. Du Hamel has observed that, in grafting trees, there is always found, at the insertion of the graft, a change in the direction of the fibres, and a sort of twisting or turning about of the vessels, which greatly imitates that in the formation of certain glands in animal bodies; and hence he infers that a new sort of viscus being thus formed, the fruit may be so far influenced by it, as to be meliorated

on the new branch; but that no such sudden and essential changes can be effected by those means, as many writers on agriculture pretend. He observes, however, that this anatomical observation would not have been sufficient to convince him of the falsity of these relations, had not experiment joined to confirm him in this opinion. He tried many grafts on different trees; and, for fear of error, repeated every experiment of consequence several times; but all served only to convince him of the truth of what he at first suspected. He grafted in the common way the peach upon the almond, the plum upon the apricot, and the pear upon the apple, the quince, and the white thorn; one species of plum on other very different species, and upon the peach the apricot, and the almond. All these succeeded alike: the species of the fruit was never altered; and in those which would not come to fruit, the leaves, the wood, and the flowers, were all the same with those of the tree whence the graft was taken. Writers on agriculture have also mentioned a very different sort of grafting, namely, the setting of grafts of one tree upon stocks of a different genus; such as the grafting the pear upon the oak, the elm, the maple, or the plum, &c. M. Du Hamel tried a great number of those experiments carefully, and found every one of them unsuccessful; and the natural conclusion from this was, that there must be some natural alliance between the stocks and their grafts, otherwise the latter will either never grow at all, or very soon perish.

Notwithstanding the facility with which grafts generally take on good stocks, there are many accidents and uncertainties attending them in their different periods. Some perish immediately; some after appearing healthy for many months, and some even for years. Of these last some die without the stock suffering any thing; others perish together with the stocks. It is certain that the greater part of grafted trees do not live so long as they would have done in their natural state; yet this is not an invariable rule: for there are some which evidently live the longer for this practice; nay, there are instances of grafts which, being placed on stocks naturally of short duration, live longer than when placed on those which are more robust and lasting. In order to the succeeding of a graft, it is plain that there must be a conformity in its vessels and juices with those of the stock. The more nearly they agree in this, probably the better they succeed; and the farther they differ, the worse. If there be some difference in the solid parts of trees, there are evidently many more in the juices. The sap in some trees is white as milk, in others it is reddish, and in some as clear and limpid as water. In some it is thin and very fluid; in others thick and viscous. In the taste and smell of these juices there are also no fewer differences: some are sweet, some insipid, some bitter, some acrid, and some fetid; the quality of the sap thus makes a very great difference in the nature of trees; but its quantity, and derivation to the parts, is scarcely less observable. Of this we have familiar instances in the willow and the box; one of which will produce longer shoots in one year than the other in twenty. Another difference yet more striking, and indeed more essential, in regard to the growth of grafts than all these, is the different season of the year at which trees shoot out their leaves, or ripen their flowers. The almond tree is in flower before other trees in general have opened their earliest buds; and, when other trees are in flower, this is full of leaves, and has its fruit set before the mulberry begins to push out its earliest buttons. The grafts of the almond on the plum, and of the plum on the almond, always grow very vigorously for the first year, and give every appearance of succeeding entirely; yet they always perish in the second or third year. The almond, grafted upon the plum stock, always pushes out very vigorously at first; but the part of the stock immediately under the graft grows smaller and perishes, the graft absorbing too much of the juices, and the graft necessarily perishes with it. The decay of the whole generally happens early in the spring, plainly from the different season of the natural shooting of the two trees; the almond pushing very vigorously, and consequently draining the stock of its juices, at a time when, according to its nature, the juices are but in small quantity in it, and the sap does not begin to ascend. The grafts of the plum on the almond are, from the same cause, furnished with an abundance of sap which they have, at that time, no occasion for; and consequently they as certainly perish of repletion, as the other of inanition. The peach, grafted on the plum, succeeds excellently, and lives longer than it would have done in a natural state; the reason seems to be, that the peach is a tender tree, shoots with great vivacity, and produces more branches than the root is able to maintain. Thus peach trees are usually full of dead wood; and often their large branches perish, and sometimes their whole trunk. On this occasion the plum, being a slow-shooting tree, communicates its virtue to the graft; and the peach consequently sends out shoots which are more robust and strong, and are no more in number than the root is able to supply with nourishment, and consequently the tree is the more lasting.

GRAFTON (Richard), an English historian, born at London in the reign of Henry VIII. He published, 1. An Abridgement of the Chronicles of England; and, 2. A Chronicle and large History of the Affayres of England and Kings of the same, deduced from the Creation of the World. He died in the reign of queen Elizabeth.

GRAFTON, an extensive county of New Hampshire, bounded on the east by Maine District, south by Strafford, Hillsborough, and Cheshire counties, west by Vermont, and north by Canada. It is divided into fifty townships, and seventeen locations.

GRAFTON, or GRAFTON ISLAND, one of the smallest of the Bashee islands in the East Indian Sea. Long. 139° 0′ W., lat. 21° 4′ N.

GRAHAM (George), clock and watch maker, the most ingenious and accurate artist in his time, was born in 1675 at Kirklington, Cumberland. Besides his universally acknowledged skill in his profession, he was a complete mechanic and astronomer; the great mural arch in the observa-

tory at Greenwich was made for Dr. Halley under his immediate inspection, and divided by his own hand; and, from this incomparable original, the best foreign instruments of the kind are copies. The sector, by which Dr. Bradley first discovered two new motions in the fixed stars, was of his invention and fabric; and, when the French academicians were sent to the north to ascertain the figure of the earth, Mr. Graham was thought the fittest person in Europe to supply them with instruments: those who went to the south were not so well furnished. He was for many years a member of the Royal Society, to which he communicated several ingenious and important discoveries. He died in 1751.

Graham (James), marquis of Montrose. See Montrose.

Graham (Sir John), of Abercorn, or Dundaff, one of the patriots who fought along with Wallace, against the English invaders under Edward I. He was killed at the battle of Falkirk, in 1298, where the following inscription repeatedly renewed is to be seen on his monument:—

Mente manuque potens, et Vallæ fidus Achates,
Conditur hic Gramus, bello interfectus ab Anglis.
XXII. Julii, 1298.

Graham (Sir Richard), lord viscount Preston, eldest son of Sir George Graham of Netherby, in Cumberland, Bart. was born in 1648. He was sent ambassador by Charles II to Louis XIV., and was master of the wardrobe and secretary of state under James II. But, when the Revolution took place, he was tried and condemned, on an accusation of attempting the restoration of that prince; though he obtained a pardon by the queen's intercession. He spent the remainder of his days in retirement, and published an elegant translation of Boethius on the consolations of philosophy. He died in 1695.

GRAHAME (James), a modern Scottish poet, was bred to the bar, but afterwards took orders in a curacy in the neighbourhood of Durham, where he died, in 1811, in the prime of life. His chief pieces are, The Sabbath; The Bards of Scotland; and British Georgics.

GRAIÆ Montes, in ancient geography, the name given by Pliny to that part of the Alps, which lies between France and Italy, and by which they pass out of Italy into the ci-devant province of Provence.

GRAIGEMANACH, a town of Ireland, in Kilkenny, on the Barrow, over which it has a bridge, twenty miles from the sea. The tide flows up to it.

GRAIL, *n. s.* From Fr. *grêle*. Small particles of any kind.

Hereof this gentle knight unweeting was,
And, lying down upon the sandy *grails*,
Drank of the stream as clear as crystal glass.
Spenser.

GRAIN, *n. s.* / Grain'ed, *adj.* / Grains, *n. s.* / Grain'y, *adj.* / Gran'ary, *n. s.* / Gran'ate, or / Gran'ite, *n. s.* Fr. *grain*; Belg. *graen*; Ital., Span., and Port. *grano*; Lat. *granum*. A single seed; corn; a small weight, so called because it is supposed of equal weight with a grain of corn: the direction of the fibres of wood; the direction of constituent particles of the human body; a dyed substance: figuratively, temper and disposition. Grains of allowance, something indulged or remitted. Grains, husks of malt. Grains of Paradise, an Indian spice. A storehouse for corn. Granate, or granite, a kind of marble, so called because it is marked with small variegations like grains.

For the whole world before thee is as a little *grain* of the balance. *Wis.* xi. 22.

Wherefore I sing; and sing I mote certain,
In honour of that blissful maiden free,
Til fro my tongue of taken is the *grain*,
And, after that thus saide she to me:
My litel childe than: wol I fetchen thee,
Whan that the *grain* is fro the tongue ytake:
Be not agaste I wol thee not forsake.
Chaucer. The Prioresses Tale.

The was eke wexing many a spice
As clowe, gilofre, and licorise,
Gingiber, and *grein* de Paris.
Id. Romaunt of the Rose.

And in his barne hath, soth to saine,
An hundred mavis of whete *graine*. *Id.*

Ye, jelousie is love;
And would a bushel of venim excusen,
For that a *grane* of love is on it shove.
Id. Troilus and Creseide.

How the red roses flush up in her cheeks,
And the pure snow with goodly vermil stain,
Like crimson dyed in *grain*. *Spenser.*

Your minds, preoccupied with what
You rather must do than with what you should do,
Made you against the *grain* to voice him consul.
Shakspeare.

Though now this *grained* face of mine be hid
In sap consuming Winter's drizzled snow,
Yet hath my night of life some memory. *Id.*

Knots, by the conflux of meeting sap,
Infect the sound pine, and divert his *grain*
Tortive and errant from his course of growth. *Id.*

Look into the seeds of time,
And say which *grain* will grow, and which will not.
Id.

Let them pronounce the steep Tarpeian death,
Vagabond exile, flaying pent to linger
But with a *grain* a day, I would not buy
Their mercy at the price of one fair word. *Id.*

As it ebbs, the seedsman
Upon the slime and ooze scatters his *grain*,
And shortly comes to harvest. *Id.*

Thou exist'st on many thousand *grains*
That issue out of dust. *Id. Measure for Measure.*

By intelligence
And proofs as clear as founts in July, when
We see each *grain* of gravel. *Id. Henry VIII.*

His reasons are as two *grains* of wheat hid in two bushels of chaff. *Id. Merchant of Venice.*

It is a sincerely pliable ductile temper, that neglects not to make use of any *grain* of grace. *Hammond.*

The trial being made betwixt lead and lead, weighing severally seven drachms, in the air; the balance in the water weighing only four drachms and forty-one *grains*, and abateth of the weight in the air two drachms and nineteen *grains*: the balance kept the same depth in the water. *Bacon.*

The one being tractable and mild, the other stiff and impatient of a superior, they lived but in cunning concord, as brothers glued together, but not united in *grain*. *Hayward.*

Give them *grains* their fill
Husks, draff, to drink and swill. *Ben Jonson.*

Unity is a precious diamond, whose *grains* as they double, twice double in their value. *Holyday.*

Over his lucid arms
A military vest of purple flowed,
Livelier than Melibæan, or the *grain*
Of Sarra, worn by kings and heroes old. *Milton.*

Come, pensive nun, devout and pure,
All in a robe of darkest *grain*,
Flowing with majestic train. *Id.*

The third, his feet
Shadowed from either heel with feathered mail,
Sky-tinctured *grain*! *Id. Paradise Lost.*

Quoth Hudibras, it is in vain,
I see, to argue 'gainst the *grain*. *Hudibras.*

His brain
Outweighed his rage but half a *grain*. *Id.*

The tooth of a sea-horse, in the midst of the solider parts, contains a curdled *grain* not to be found in ivory. *Browne.*

They began at a known body, a barley-corn, the weight thereof is therefore called a *grain*; which ariseth, being multiplied, to scruples, drachms, ounces, and pounds. *Holder.*

The beech, the swimming alder, and the plane,
Hard box, and linden of a softer *grain*. *Dryden.*

Though much against the *grain*, forced to retire,
Buy roots for supper, and provide a fire. *Id.*

Pales no longer swelled the teeming *grain*,
Nor Phœbus fed his oxen on the plain. *Id.*

Many of the ears, being six inches long, had sixty *grains* in them, and none less than forty. *Mortimer.*

The ungrateful person lives to himself, and subsists by the good nature of others, of which he himself has not the least *grain*. *South.*

Alabaster, marble of divers colors, both simple and mixed, the opulites, porphyry, and the *granite*. *Woodward.*

Stones of a constitution so compact, and a *grain* so fine, that they bear a fine polish. *Id.*

Ants, by their labour and industry, contrive that corn will keep as dry in their nests as in our *granaries*. *Addison.*

He, whose very best actions must be seen with *grains of allowance*, cannot be too mild, moderate, and forgiving. *Id.*

There are still great pillars of *granite* and other fragments of this ancient temple. *Addison on Italy.*

'Tis a rich soil, I grant you; but oftener covered with weeds than *grain*. *Collier on Fame.*

The smaller the particles of cutting substances are, the smaller will be the scratches by which they continually fret and wear away the glass until it be polished; but be they never so small, they can wear away the glass no otherwise than by grating and scratching it, and breaking the protuberances; and therefore polish it no otherwise than by breaking its roughness to a very fine *grain*, so that the scratches and frettings of the surface become too small to be visible. *Newton's Opticks.*

I would always give some *grains of allowance* to the sacred science of theology. *Watts on the Mind.*

The naked nations cloathe,
And be the' exhaustless *granary* of a world.
Thomson's Spring.

And freshness breathing from each silver spring,
Whose scattered streams from *granite* basins burst,
Leap into life, and sparkling woo your thirst. *Byron.*

There *grain*, and flower, and fruit,
Gush from the earth until the land runs o'er.
Id. Don Juan.

GRAIN. See BARLEY, CORN, WHEAT, &c.

GRAIN, OILY. See SESAMUM.

GRAIN, SCARLET. See CACTUS, COCCUS, and QUERCUS.

A GRAIN WEIGHT of gold bullion is worth two-pence, and of silver only half a farthing.

GRAIN COAST. See MALAGUETTA.

GRAIN (John, Baptist le), counsellor and master of requests to Mary de Medicis queen of France, was born in 1565, and was much esteemed by Henry IV. He wrote a work entitled, Decades, containing The History of Henry the Great, and of Louis XIII., from the beginning of his reign to the death of the Marshal d'Ancre in 1617. He vigorously defends the edict that had been granted to the reformed. He died at Paris in 1643.

GRAINGER (James), M. D., a distinguished poet in the last century, was born at Dunse, in Berwickshire, in 1724. His father, who had been reduced by adverse circumstances, still bestowed on him a classical education, and placed him with a surgeon at Edinburgh, where he attended the medical lectures of the university. Entering the army, as a regimental surgeon, he served in Germany under the earl of Stair, till the peace of Aix-la-Chapelle, after which he took his degree of M. D. and settled in London. He is said principally to have supported himself by writing for the press. An Ode to Solitude, published in Dodsley's collection, first procured him reputation; and, among others, the acquaintance of Shenstone and Dr. Percy. In 1759 he published his Elegies of Tibullus, which involved him in a paper war with Dr. Smollet. He then went to the West Indies as tutor to a young gentleman, and, during the voyage, formed an attachment to a lady, whom he married on his arrival at the island of St. Christopher's, of which her father was governor. Here he again, and very successfully, engaged in medical practice; and produced a West Indian Georgic, or didactic treatise in blank verse, entitled The Sugar Cane, and Bryan and Pereene, a ballad. The former he published in England, in 1764. He then returned to Basseterre, St. Christopher's, where he died of a fever, in 1767.

GRAITNEY. See GRETNA.

GRALLÆ, in ornithology, an order of birds analogous to the bruta in the class of mammalia, in the Linnæan system. See ZOOLOGY and ORNITHOLOGY

GRAMAYE (John Baptist), a historian and poet, born at Antwerp, and provost of Arnheim. He travelled over Germany and Italy, but, in going to Spain, was carried off by African corsairs to Algiers. He returned to the Netherlands, and died at Lubeck. He published, 1. Africæ Illustratæ, libri X. in 1622; 4to. 2. Diarium Algiriense: 3. Peregrinatio Belgica; a curious work: 4. Antiquitates Flandriæ, folio; and, 5, Historia Namurcensis.

GRAME'RCY, *interj.* Contracted from grant me mercy. An obsolete expression of surprise.

O, which a pitous thing it was to see
Hire swouning, and hire humble vois to here!
Grand mercy! Lord! God thank it you, quod she
That ye han saved me my children dere.
Chaucer. The Clerkes Tale.

Truly? *Gramercie* frende of your gode will.
Id. The Court of Love.

Gramercy, sir, said he; but mote I weet
What strange adventure do ye now pursue? *Spenser*

Gramercy, lovely Lucius, what's the news?
Shakspeare.

GRAMINA, grasses, one of the seven tribes, or natural families, into which all vegetables are distributed by Linnæus in his Philosophia Botanica. They are defined to be plants which have very simple leaves, a jointed stem, a husky calyx termed gluma, and a single seed. This description includes the several sorts of corn as well as grasses. In Tournefort they constitute a part of the fifteenth class, termed apetali; and, in Linnæus's sexual method, they are mostly contained in the second order of the third class, triandria digynia. This numerous and natural family of the grasses has engaged the attention and researches of several eminent botanists; particularly Ray, Monti, Micheli, and Linnæus. M. Monti, in his Catalogus stirpium agri Bononiensis, gramina ac hujus modi affinia complectens, printed at Bononia in 1719, divides the grasses from the disposition of their flowers, as Theophrastus and Ray had done before him, into three sections or orders. These are, 1. Grasses having flowers collected in a spike. 2. Grasses having their flowers collected in a panicle or loose spike. 3. Plants that in their habit and external appearance are allied to the grasses. This class would have been natural if the author had not improperly introduced sweet rush, juncus, and arrow-headed grass, into the third section. Monti enumerates about 306 species of the grasses, which he reduces under Tournefort's genera; to these he added three new genera. Scheuchzer, in his Aristographia, published likewise in 1719, divides the grasses, as Monti, from the disposition of their flowers, into the four following sections: 1. Grasses with flowers in a spike, as phalaris, anthoxanthum, and frumentum. 2. Irregular grasses, as schœnanthus and cornucopiæ. 3. Grasses with flowers growing in a simple panicle or loose spike, as reed and millet. 4. Grasses with flowers growing in a compound panicle, or diffused spike, as oats and poa. See BOTANY.

GRAMI'NEOUS, *adj.* Lat. *gramineus*. Grassy. Gramineous plants are such as have a long leaf without a footstalk.

GRAMINI'VOROUS, *adj.* Lat. *gramen* and *voro*. Grass-eating; living upon grass.

The ancients were versed chiefly in the dissection of brutes, among which the *graminivorous* kind have a party-coloured choroides. *Sharp's Surgery.*

GRAMMAR.

GRAM'MAR, *n. s.* } Fr. *grammaire*,
GRAM'MAR-SCHOOL, *n. s.* } *grammairien*; Lat.
GRAMMA'RIAN, *n. s.* } *grammaticus*; Gr.
GRAMMAT'ICAL, *adj.* } γραμμα, a letter. The
GRAMMAT'ICALLY, *adv.* } science of writing or
GRAMMAT'ICASTER, *n. s.* } speaking correctly; the art or person who teaches the relation of words to each other; the book used for teaching this science; the place in which the learned languages are taught; whatever belongs to the rules of grammar: grammaticaster is a low verbal pedant: this word is obsolete.

I can no more expound in this matere;
I lerne song; I can but smal *grammere*.
Chaucer. The Prioresses Tale.

Thou hast most traitorously corrupted the youth of the realm in erecting a *grammar-school*.
Shakspeare.

To be accurate in the *grammar* and idioms of the tongues, and then as a rhetorician to make all their graces serve his eloquence. *Fell.*

The beauty of virtue still being set before their eyes, and that taught them with far more diligent care than *grammatical* rules. *Sidney.*

Many disputes the ambiguous nature of letters hath created among the *grammarians*. *Holder.*

I shall take the number of consonants, not from the *grammatical* alphabets of any language, but from the diversity of sounds framed by single articulations with appulse. *Id.*

Varium et mutabile semper femina, is the sharpest satire that ever was made on woman; for the adjectives are neuter, and animal must be understood to make them *grammar*. *Dryden.*

They who have called him the torture of *grammarians*, might also have called him the plague of translators. *Id.*

They seldom know more than the *grammatical* construction, unless born with a poetical genius.
Id. Dufresnoy.

We make a countryman dumb, whom we will not allow to speak but by the rules of *grammar*. *Id.*

The ordinary way of learning Latin in a *grammar-school* I cannot encourage. *Locke.*

Men speaking language, according to the *grammar* rules of that language, do yet speak improperly of things. *Id.*

I have not vexed language with the doubts, the remarks, and eternal triflings of the French *grammaticasters*. *Rymer.*

When a sentence is distinguished into the nouns, the verbs, pronouns, adverbs, and other particles of speech which compose it, then it is said to be analysed *grammatically*. *Watts.*

As *grammar* teacheth us to speak properly, so it is the part of rhetorick to instruct how to do it elegantly, by adding beauty to that language that before was naked and *grammatically* true. *Baker.*

We are naturally led to begin with the consideration of substantive nouns, which are the foundation of all *grammar*, and may be considered as the most ancient part of speech. *Blair's Lectures.*

The first degree of proficiency is, in painting, what *grammar* is in literature, a general preparation for whatever species of the art the student may afterwards choose for his more particular application.
Sir J. Reynolds.

GRAMMAR. It is probable that this word had a very narrow import at first, equivalent perhaps to orthography; but it was gradually extended so as to comprehend many ideas not originally contemplated; and, as authors have never been agreed respecting the number and the nature of those ideas, there is no uniform theory to be found in their writings, nor even a clear and certain definition of the term. In one view Grammar may be considered as a science; in another view it may be considered as

an art; or we may distinguish it into universal or philosophic, and particular or idiomatic. Perhaps the simplest and best distinction would be into rational and customary Grammar. Of the former, reason is to be considered as the authority or standard; of the latter there is no authority or standard but custom, agreeably to the quotation so often adduced from Horace.

Usus
Quem penes arbitrium est, et jus et norma loquendi.

'The first of these,' says Wilkins in his Essay towards a Real Character, 'i. e. philosophical, rational, universal Grammar, hath been treated of but by few; which makes our learned Verulam put it among his Desiderata. I do not know any more that have purposely written of it, but Scotus in his Grammatica Speculativa, and Caramuel in his Grammatica, and Campanuella in his Grammatica Philosophica. (As for Scioppius his Grammar of this title, that doth wholly concern the Latin tongue). Besides which, something hath been occasionally spoken of it by Scaliger, De Causis Linguæ Latinæ; and by Vossius in his Aristarchus.' Subsequently to the time of Wilkins, Harris wrote his 'Hermes or a Philosophical Enquiry concerning Universal Grammar.' This work acquired considerable celebrity. Dr. Lowth in the Preface to his Grammar says: 'Those who would enter more deeply into this subject, will find it fully and accurately handled with the greatest acuteness of investigation, perspicuity of explication, and elegance of method, in a treatise entitled Hermes, by James Harris, Esq., the most beautiful and perfect example of Analysis that has been exhibited since the days of Aristotle.'

Lord Monboddo (in Orig. and Prog. of Language, vol. i. p. 8) pronounces 'Hermes a work that will be read and admired as long as there is any taste for philosophy and fine writing in Britain.' Mr. Horne Tooke admits that 'Hermes has been received with universal approbation both at home and abroad, and has been quoted as undeniable authority on the subject by the learned of all countries. For which, however,' he adds, 'I can easily account, not by supposing that its doctrines gave any more satisfaction to their minds who quoted it than to mine; but because, as judges shelter their knavery by precedents, so do scholars their ignorance by authority: and where they cannot reason, it is safer and less disgraceful to repeat that nonsense at second hand which they would be ashamed to give originally as their own.' 'If others of a more elegant taste for fine writing are able to receive either pleasure or instruction from such philosophical language, as that of Hermes, I shall neither dispute with them nor envy them: but can only deplore the dulness of my own apprehension, who, notwithstanding the great authors quoted in Mr. Harris's treatise and the great authors who recommend it, cannot help considering this 'perfect example of analysis,' as an improved compilation of almost all the errors which Grammarians have been accumulating from the time of Aristotle down to our present days of technical and learned affectation.'

It must be admitted that Mr. Horne Tooke is sufficiently severe, or to use his own expression that he speaks 'too sharply for philosophy.' His apology or justification is: 'Neminem libenter nominem, nisi ut laudem; sed nec peccata reprehenderem, nisi ut aliis prodessem. At the same time, I confess, I should disdain to handle any useful truth daintily, as if I feared lest it should sting me; and to employ a philosophical enquiry as a vehicle for interested or cowardly adulation. My notions of language were formed before I could account etymologically for any one of the words in question, and before I was in the least acquainted with the opinions of others. I addressed myself to an enquiry into their opinions with all the diffidence of conscious ignorance; and, so far from spurning authority, was disposed to admit half an argument from a great name. So that it is not my fault, if I am forced to carry instead of following the lantern: but at all events it is better than walking in total darkness. And yet, though I believe I differ from all the accounts which have been hitherto given of language, I am not so much without authority as you may imagine. Mr. Harris himself, and all the Grammarians whom he has, and whom (though using their words) he has not quoted, are my authorities. Their own doubts, their difficulties, their dissatisfaction, their contradictions, their obscurity on all these points, are my authorities against them: for their system and their difficulties vanish together.'

The following is the manner in which Mr. Horne Tooke disposes of the once celebrated Hermes. 'You mean then by what you have said flatly to contradict Mr. Harris's definition of a conjunction; which he says is a part of speech devoid of signification itself, but so formed as to help signification, by making two or more significant sentences to be one significant sentence.' I have the less scruple to do that, because Mr. Harris makes no scruple to contradict himself. For he afterwards acknowledges that some of them have a kind of obscure signification when taken alone; and appear in grammar, like zoophytes in nature, a kind of middle beings of amphibious character; which, by sharing the attributes of the higher and the lower, conduce to link the whole together.

'Now I suppose it is impossible to convey a nothing in a more ingenious manner. First, he defines a word to be a sound significant: then he defines conjunctions to be words (i. e. sounds significant) 'devoid of signification.' Afterwards he allows that they have 'a kind of signification.' But this kind of signification is 'obscure (i. e. a signification unknown); something I suppose (as Chillingworth couples them) like a secret tradition or a silent thunder: for it amounts to the same thing as a signification which does not signify; an obscure or unknown signification being no signification at all. But not contented with these inconsistencies, which to a less learned man would seem sufficient of all conscience, Mr. Harris goes farther, and adds, they are a 'kind of middle beings (he must

mean between significa ·n and no signification) sharing the attributes of both' (i. e. of signification and no signification) and 'conduce to link them both together.'

It would have helped us a little, if Mr. Harris had here told us what that middle state is, between signification and no signification! what are the attributes of no signification! and how signification and no signification can be linked together! Now all this may, for aught I know, be 'read and admired as long as there is any taste for fine writing in Britain.' But with such unlearned and vulgar philosophers, who seek not taste and elegance but truth and common sense in philosophical subjects, I believe it will never pass as a 'perfect example of analysis;' nor bear away the palm for 'acuteness of investigation and perspicuity of explication.' For separated from the fine writing (which however I can no where find in the book) this is the conjunction explained by Mr. Harris. A sound significant devoid of signfication, having at the same time a kind of obscure signification; and yet having neither signification nor no signification; but a middle something between signification and no signification, sharing the attributes of signification and no signification; and linking signification and no signification together.'

It is impossible for logical inconsistency to stand such a cross examination. The only thing felt by the reader is the redundancy and satiety of the confutation. Never was the extinguisher so effectually put upon the reputation of a work as by Horne Tooke on the Hermes of Harris. Twenty-two years ago it was a work of great philological celebrity; but since that time there is hardly a grammarian or philologer of any note who has ventured to eulogise it. Mr. Harris was unquestionably an elegant scholar; but on this alone, as the author of Hermes, must his claim to admiration now rest.

As the philological reputation of Mr. Horne Tooke has superseded that of Mr. Harris, it will be proper to devote some attention to his celebrated work, entitled, not very happily, The Diversions of Purley; which possesses singular interest, displays much learning, acuteness, and reflection; but which is disfigured by considerable blemishes. It is too desultory and miscellaneous—too political, vituperative, sarcastic, assumptive, and dogmatical. The charm of the work would be destroyed by abridgment; but all that is truly ad rem, or available for any philological purpose, might be comprised within a very small compass.

Not a few of Mr. Horne Tooke's positions are specious or imposing rather than sound and satisfactory. As for example the following:—'This method of referring words immediately to God as their framer, is a short cut to escape enquiry and explanation. It saves the philosopher much trouble; but leaves mankind in much ignorance, and leads to great error.' But what ignorance can the supposed Divine origin of language perpetuate among mankind? or how can it lead to great error? Unless we can ascertain the origin of language, we are just where we were as to ignorance or error, whether we assume a Divine or a human origin. All attempts to ascertain the origin of language have hitherto failed: nor is there the shadow of a probability that future attempts will be more successful. We have the following confession from one who has long made language his study, and who was at one time very sanguine that he could ascertain its origin. 'On this obscure subject the reader is promised nothing but brevity; for, after much toilsome enquiry and anxious reflection, the author has no satisfactory opinion to offer.—Some persons have believed that Hebrew was the first language of man, and that the Hebrew alphabet came down from heaven. This is a short cut (as Horne Tooke terms it) which saves much trouble; for on this hypothesis we have only to believe. Admitting, however, that letters are of human invention,—what is the nature of that invention? Here we possess no certain data on which to reason; for we have no authentic history of this important invention. Being wholly destitute of facts, we have nothing better than conjectures on which to form an opinion.' The author of the Etymologic Interpreter might have added, what was no doubt understood, though not expressed, that it is impossible to find out, from examining language itself, the nature of its origin.

Another of Mr. Horne Tooke's specious but unsatisfactory positions is, that it is as 'improper to speak of a complex idea as it would be to call a constellation a complex star; and that they are not ideas, but merely terms which are general and abstract:' and that 'what are called the operations of the mind, are merely the operations of language.' This, which in the view of Mr. Horne Tooke is of great magnitude, he attempts to establish by a very doubtful kind of etymology. He does indeed intimate, 'that it is an easy matter, upon Mr. Locke's own principles, and a physical consideration of the senses and the mind, to prove the impossibility of the composition of ideas.' And accordingly also (as he likewise intimates) of abstraction, complexity, generalisation, relation, &c. of ideas. But, easy as such proof was alleged to be, he did not attempt it: nor has he given any evidence of being capable of a successful attempt of this nature. Indeed his expression betrays inconsideration: for how can any one who knows what he says, or whereof he affirms, speak of 'a physical consideration of the senses and the mind?' It is hardly possible to find any thing more futile than much of what Mr. Horne Tooke says respecting metaphysics. All his etymologies might be as certain as the greater number of them are doubtful, yet every one of his metaphysical deductions or opinions be false. *True* for example, may be the past participle of *trow*; and *truth* the third person singular of the indicative, yet what is called in our language *truth*, be some more certain and less fickle entity than that which any one *troweth* or thinketh. But the fact is, that the very etymology in question is as false as the opinion founded upon it, or attempted to be supported by it. There is not room, however, here to refute the metaphysical theory of Horne Tooke in a full and formal manner; but it can hardly require refutation, for it has little to recommend it but confidence and

assumption. Mr. Horne Tooke's theory of a northern origin to the languages of Europe, and his Gothic etymologies are also very doubtful: but of these more hereafter.

The foregoing may suffice to direct the reader to the great authorities in our language on the subject of Philosophical Grammar. In our present article we divide the consideration of grammar into four parts. I. Treating of the General Principles of Grammar or Philology. II. Of the Parts of Speech, or Grammatic Distinctions of words. III. Of Prefixes and Affixes. IV. Of Rational Grammar of the English Language

PART I.

THE GENERAL PRINCIPLES OF GRAMMAR OR PHILOLOGY.

SECT. I.—OF THE DERIVATION OF THE ENGLISH LANGUAGE.

On this subject, to a certain extent at least, there can be but one opinion among competent judges. A great part of the English language is derived from Latin and Greek. Many words have been received directly from these languages; many have been received through the Italian, the Spanish, the Portuguese, German, Swedish, Danish, and Dutch; but the far greater proportion have come through the medium of the French.

The causes of the direct entrance of learned terms are—the general study of the learned languages; the facility with which such terms are applied to the various purposes of art, science, and philosophy, &c. (not to mention a very general disposition in learned men to show their learning); the application of Latin to law, physic, surgery, anatomy, botany, &c.; add to all which, the consideration that it was long almost the only written language of Europe:—to comprehend all in one sentence, Latin has for many hundreds of years been the learned language of Europe, and the terms of the learned are constantly descending into and becoming part of the common or vernacular language of every people on the face of the earth. It is on this obvious principle that we hope to prove that, if not all, nearly all that very part of our language which is most confidently received as Saxon and Gothic is, in fact, neither more nor less than a corruption of Greek and Latin.

The reason why many Greek and Latin words have been adopted by us, through the medium of the Italian, is sufficiently obvious. Rome, even when her consuls and emperors were no more, was still the seat of empire: an empire of mightier sway over the minds and habits of language of the nations than ever was the power of the Cæsars. From other causes, too, Italy was the fountain of influence to all parts of Christendom; for besides the Catholic religion, with its Roman priesthood and Latin tongue, science, the productions of arts, and the arts themselves, were thence derived. It was Italy, too, that took the lead in vernacular literature: and her poets, novelists, historians, and philosophers, were as much in advance of those of other modern nations as she was in advance of the rest of Europe in arts and manufactures.

It has been intimated that the greatest influx of Greek and Latin words has been through the channel of the French. The causes of this are, evidently, the geographical proximity of France, and her predominant influence in politics, polite literature, and fashion; which influence has operated powerfully in Europe, and especially in Britain, ever since the reign of Charlemagne.

About the commencement of our vernacular literature there was, indeed, an extraordinary importation of French terms; and the reason is obvious; for, as the French borrowed all from the Italian (which is admitted even by Voltaire), we at that period borrowed nearly all from the French. But the grand cause of the fact in question was the conquest. It is well known that William of Normandy attempted to make French the only language of England; that it was the only language spoken at court, taught in schools, employed in statutes, legal forms and pleadings, &c. &c.

It has been intimated above that some of the learned words, of which so much of our language consists, were received through the medium of the Spanish. The reason of this was the political pre-eminence, and consequent predominant influence, which Spain at one time possessed. Thus we have duplicates and triplicates of many words, which we borrowed by turns from the Italians, French, and Spaniards, as they respectively happened to be in the political ascendant. But there was another cause of the influence of the Spanish: it formed a point of contact, or link of connexion, with the arts and sciences of the Saracens: hence the portion of Arabic which is found in the different languages of Europe; for knowledge has the power not only of forcing a passage from more enlightened into less enlightened nations, but also of taking with it the very terms in which it happens to be contained. The fact is, words and thoughts are so mutually adapted that translation is always difficult, and often impossible; so that it is less from choice than necessity that a people, poor in arts and sciences, borrow not only the improvements, but, to a certain extent, the language of their richer, i. e. more intellectual, more literary, and more philosophical neighbours: thus the nations of Europe, during the middle or dark ages, borrowed largely from the Saracens and the Greeks; thus the Celts, the Goths, the Sarmatians, and even the Persians, the Arabians, &c. &c., borrowed largely, for many ages, from the Greeks and Romans. These were the Backwoods-men of Grecian influence and the Roman empire: and, if those stationary and unimprovable animals, the naked savages of Indiana, already speak a corrupt English (or Yankee), it cannot surely be thought incredible that the venerable Gothic (whose origin, Mr. Horne Tooke says, is buried in the deepest antiquity) should prove, after all, with very little if any exception, a corruption of Greek and Latin.

SECT. II.—THE ANGLO-SAXON AND GOTHIC ORIGIN OF THE ENGLISH LANGUAGE CONSIDERED.

It is not without some reluctance that the author approaches this question; because he has to

controvert the opinions of Mr. Horne Tooke, for whose memory he entertains the sincerest respect and for whose labors he feels truly grateful. He will not say that he would rather be in the wrong with Horne Tooke than in the right with Harris; but he considers the errors of the one far more interesting, and even instructive, than the truths of the other. Many had pretended to write philosophically; but it was reserved for the author of The Diversions of Purley to be the first, at least in this country, to write sensibly on the subject of language. If his celebrated work be big with promises, which never have been, and which, probably, never can be realised; they have internal evidence of proceeding from sincerity. But, with every disposition to admit the merits of the above work, it certainly does contain a considerable portion of unsound opinion, especially in connexion with the author's favorite theory of a Northern Origin; in support of which, ingenious paradox and bold assertion are more conspicuous than careful enquiry and dispassionate reflection: and the Gothic derivations are, for the most part, not only mere assumptions, but many of them are such as would have disgraced Junius or Skinner.

We had once intended to collect in this place all the unsound and absurd etymologies of Horne Tooke, and confront them with what we deem true derivations; but such a task might seem invidious. It was the unfortunate theory of the Northern Origin that misled the acute judgment of the author of the Diversions of Purley; for his Greek and Latin derivations are as remarkably sound and incontrovertible as many of his Gothic derivations are absurd and false. His Gothic partialities and prejudices, connected as they were with a particular theory and a political bias, are easily accounted for; but they are, nevertheless, unworthy of his understanding and inconsistent with the philosophic spirit of free enquiry. He perceived a remarkable similarity, or rather identity, in many Gothic and Anglo Saxon words with Greek and Latin terms. What is the inference deducible from this fact? That the half civilised and illiterate tribes of the north borrowed such words from the highly civilised, and therefore powerfully influential, Greeks and Romans; or that they both derived them from a common origin? No, indeed, but that the Greeks and Romans, those masters and teachers of the world after the extinction of Babylon and Memphis, borowed many words (perhaps terms of art and science) from the rude and unlettered tribes of ancient Germany! Or, as is ingeniously (not to say fancifully) supposed, in bold defiance of all history and all probability, that these rude tribes made successful irruptions into Greece and Italy, and grafted their language on that which already existed in these countries!

But the Herculean argument for the Northern Origin is the darkness of its deep antiquity. We can trace (Mr. Horne Tooke avers) the origin of the Latin and the Greek; but that of the Gothic is involved in darkness and buried in the deepest antiquity. But is not the origin of all the languages of all the uncivilised and half-civilised tribes of the earth sufficiently buried in darkness entitle them to the same honor? Why should the Anglo-Saxon or Gothic monopolise all this merit? The Celtic has surely some claims; and, as to words without number, every one capable of using a dictionary may soon satisfy himself not only of striking resemblance, but of absolute identity, with both the Greek and the Latin. Have not the Welsh, for example, Pont and Dant? which are plainly Pons and Dens, or, as in Italian, Ponte and Dente. And is it not undeniably certain that the Romans borrowed all such words from the Welsh, the more ancient people?—which word people, as well as populus, is, without controversy, a corruption of the Welsh Pobl; for the more cultivated and literary language is uniformly derived from one ruder and less literary. It is amusing enough to find other writers advocating the Celtic origin of the Greek and Latin Languages, with as much zeal, if not with the same talent, as Horne Tooke advocated the Gothic origin.

The fact is as well established as any historical fact whatever, that the Goths had not the use of letters before the fourth century; that they borrowed their letters from the Greeks and Romans; that their first attempts at literature were rude translations and imitations of works written in Greek and Latin.

The fair inference seems to be, that as the Gothic, or, say at once, Saxon literature (and the writings of men in the present age who know not how to spell their own name are as worthy of such a dignified appellation), originated in Greek and Latin, so did a great proportion of the words composing it. Such has always been the case; for a rude and illiterate people as naturally borrow words from their civilised and literate neighbours as they borrow their improvements and arts and sciences, or as the poor beg from the rich: and the inverse process supposed is as absurd as the idea of the rich borrowing food and raiment from the poorest paupers that exist in their neighbourhood or live on their bounty.

The only question, indeed, with unprejudiced enquirers, is likely to be concerning not the reality but the amount of Saxon derivation from the learned languages. This may not be easily ascertained with perfect accuracy; but, from the very nature of the operating causes or influencing circumstances, it must have been very considerable: and in reply to all Horne Tooke's witticisms, about the Goths not waiting for others to come and put words in their mouth, it is sufficient to remark, that they would naturally adopt in process of time new foreign terms for many of their old vernacular ideas, (for such is the process with all people similarly circumstanced), and that with the multitude of ideas which literature introduced among them, they would adopt, to a wide extent, the terms in which they were conveyed to them, partly from choice, and partly from necessity. This is the history of all the living languages of the earth; not merely of such as are most rude, unformed, and imperfect (and what can well partake more of these attributes than the scrap of Gothic contained in Codex Argenteus, or even the Saxon of the eighth and ninth centuries?) but of those which are most improved, and most firmly fixed by authoritative rules, established principles, and admitted stand-

ards. New terms and modes of speech are constantly displacing the old. Custom, the sovereign arbiter of language, is as capricious as tyrannical; and 'time is the greatest of all innovators.'

The only argument of Mr. Horne Tooke intrinsically deserving refutation, is that which he attempts to erect on the evidence of etymology; and on this he evidently relies with much confidence. He puts the question—When two different languages have the same words, how are we to ascertain which of them borrowed from the other? This is not a very satisfactory mode of putting the question, for two languages might have the same words without either borrowing from the other, as both might have derived them from a common origin. But his manner of replying to the question is still less satisfactory. Etymology is to decide. So far good; but what kind of etymology? Here the advocate of the northern origin (to use his own words) takes a short cut which saves much trouble, but leaves us in much ignorance; for, instead of proofs, he contents himself with assumptions, as if the business were settled by merely asserting that a certain word is a Gothic verb or noun, without even attempting to give us any further information. As to the instances which he gives of Gothic and Saxon words, whence corresponding Latin and Greek words must have been derived, it is difficult to conceive any reason whatever, save that the former are found in Gothic and Saxon letters and spelling.

There are but few Gothic admirers that can deserve the honor of being noticed in connexion with the author of the Diversions of Purley; but this seems the proper place for saying a few words about the utility of Saxon literature, especially as there appears some disposition to exalt it into undue importance. A Saxon professor in one of our most renowned seats of learning has employed very laudatory strains on the subject; to one or two of which it will suffice to apply the test of criticism, if, indeed, it be fair thus to try the soundness of panegyrical orations.

'The Anglo-Saxon,' the learned professor affirms, 'is one of those ancient languages to which we may successfully refer in our enquiries how language has been constructed.' This is a most comfortable assurance, pregnant with hope and anticipation as the doctrine of Horne Tooke; but, if equally barren of results, it will only tantalize our fond desires.

The sober truth is, that Anglo-Saxon is available for etymologic purposes in studying the English language, but not half so available as German, Swedish, Danish, Dutch, old English, Scottish, Greek, and Latin. The reason is obvious; such was the illiterateness of even the Saxon literati, that they knew not how to depict to the eye their own barbarous sounds. Hence the caprices of Saxon orthography, as they are leniently termed by the candid and enlightened author of the Anglo-Saxon history. To have a true idea of these caprices, (more properly rude essays at spelling), we have only to compare them with the literary attempts of our most unlettered mechanics or laborers who can barely read and write. Their orthography and composition and that of the Saxons will be found remarkably similar. This may displease the lovers of Saxon literature, and all lovers are apt to be offended when freedoms are taken with the objects of their affections; but our apology must be, that we have no wish to offend, and the ruling principle of our sentimentality is, Rien n' est beau que le vrai.

'The present language of Englishmen,' says the Saxon scholar above alluded to, 'is not that heterogeneous compound which some imagine, compiled from the jarring and corrupted elements of Hebrew, Greek, Latin, French, Spanish, and Italian; but (but what? completely Anglo-Saxon in its whole derivation, having none but pure Gothic words in its whole vocabulary!) completely Anglo-Saxon in its whole idiom and construction.' We may well exclaim fie upon *but;* for it brings forth a most irrelevant conclusion. A zealous Frenchman might exclaim,—The present language of Frenchmen is not that corruption of Latin which some imagine, but completely French in its whole idiom and construction: and thus might Spanish and Italian professors reason for the idiomatic antiquity of their language.

Specimens of the present English have been selected for the purpose of showing what a great number of pure Saxon words they contain; but we think it can be proved that most, if not all, of these very Saxon words are as really Greek and Latin, as those which are admitted to be adopted from these languages. The sole difference is, that the words given as Saxon were adopted at a much earlier and ruder period, and, therefore, are more changed, contracted, and disguised. This is an opinion not hastily adopted (for it was reluctantly admitted, being forced upon the understanding of the author in opposition to his faith in the Northern Origin), but slowly and cautiously formed, after much enquiry and long deliberation.

If this opinion can be established, if it can be satisfactorily shown that all, or nearly all, the words of the English language are merely Greek and Latin terms, in learning which so much time is spent in youth; the result will surely be far more important than tracing them up to the darkness of Gothic antiquity, which is as void of pleasing association as of useful instruction.

Sect III.—Verbal Contraction, or Abbreviation Considered.

Here three general rules may be laid down.

1. The more illiterate any people are, the more do they contract their words; and the illiterate part of a community always shorten their words more than the educated portion of society. Thus the language of the Franks abounds with more violent contractions of Latin than does that of the Italians, the modern masters and teachers of Europe. The language of the Saxons is characterised by more verbal contraction than the old English in the time of Chaucer, and the English of his period has more of the same character than when our language first began to be fixed by established rules and uniform polite usage: and thus, also, the language of the vulgar is remarkable for violent contractions. as, *gemman*, for gentleman; *a'nt*, for are not; *fudge*, for fiction; *fib*, for fable: to

which may be added such words as the following, though yet tolerated in familiar or jocular discourse; *ca'nt*, *sha'nt*, *wont*, for cannot, shall not, will not; *rant*, for rodomontade; *rum*, for romantic; *chum*, for comrade, &c. &c. Had these and all such words descended to us from the venerable antiquity of Saxon literature, they would, in all probability, have possessed, if not dignity, at least respectability; but, being vulgar upstarts of recent times, they can never rise to the classic title of good expressions, or to the honor of polite usage.

2. Longer words and syllables contract (whilst language is unfixed) into shorter, and the longer the word, the greater the contraction. Thus polysyllables become monosyllables, and monosyllables frequently shorten into a single letter: as auditus contracted into *udito*, It.; *ouï*, Fr. Ego contracted into ‡ eck, ‡ ick, ‡ ich, ‡ ic, then *I*, *je*, Fr.; *io*, It.; *yo*, Sp. Habeo, contracted into *ho*, It.; *he*, Sp.; *ai*, Fr., &c. &c.

Such is the process of every living language on the face of the earth until checked by grammatic authority, which is late in coming into existence, and not till long after the lawless anarchy of custom has committed strange etymologic outrages in mutilating and disfiguring the monuments of classic antiquity. These disfigurations are the true Gothic origin of the modern languages: and even the Italians, those modern Latins, consider themselves indebted for their language to the Lombards.

The contractions in question are made in every possible manner; sometimes the beginning and sometimes the termination of words is cut off, and sometimes the middle is thrust out and the two extremes compressed into the closest possible contact; especially by the French, who, next to the Anglo-Saxons, have been guilty of the greatest etymologic havoc. The following ancient and modern names of places are presented as instances of the process of verbal contraction above indicated. The oldest form is put first.

Acarnania, now Carnia; Aciris, Acri; Adranum, Aderno; Ænona, Nona; Ænus, In; Agrigentum, Gergenti; Aletium, Lecci; Alexandria, Scanderia; Alexandrium, Scandalia; Aluta, Alth; Ambiana, Amiens; Amisia, Emse; Amisus, Amid; Amphipolis, Emboli; Antipolis, Antibe; Aquæ Sextiæ, Aix; Arelatum, Arles; Arsenariaria, Arzen; Ateste, Este; Agusta, Aosta; Augustodunum, Autun; Auximum, Osimo; Barathra, Brata; Borbetomagus, Worms; Cabilonum, Challon; Cæsar Augusta, Saragossa; Ligeris, Loire; Mæandrus, Madre; Matrona, Marne; Metaurus, Marro; Magantiacum, Mentz; Rhodanus, Rhone; Thessalonica, Salonichi; Garienus, Yar; Eboracum, York; Castellum, Cassel; Conimbrica, Coimbra; Damascus, Damas; Forum Julii, Friuli; Lugdunum, Lyons; Novesium, Neus; Noviodunum, Noyon; Telo Martius, Toulon; Tridentum, Trent, &c. &c.

These instances, besides answering the immediate purpose, serve also to exemplify nearly all the usual alphabetical interchanges and transmutations. It may be observed, that many names of places whose orthography has been fixed, are much abbreviated in common speech: as Cirencester pronounced *sister*, &c. From this, as well as from all the foregoing examples, it plainly appears not only that long words are contracted into shorter forms, but that the longer the name, the greater the contraction; as in all cases the more difficult and unmanageable a word is, the greater is its corruption in process of time. The following instances are taken almost at random.

Eleemosyna, *alms*; episcopos, *bishop* (*abispo*, Sp.; *vescovo*, It.; *evêque*, Fr.; such are the caprices of etymology!) *presbyter*, *priest*; oblitero, ‡ *bluther*, *blur*, *blot*; collect, cull; coil (cueillir, Fr., &c.); bull (as Irish bull), blunder, contraction of *balena a terra*, It., balæna ad terram, a long-established expression; seacalf, seal; despicatus, despite, spite; succumb, sink; *secure*, sure; semino, sow; sluice from seclusus; count, contraction of computo; come, commeo; chair, cathedra; round, rotundus; sedate, sad, &c.

Such instances might be multiplied indefinitely. We merely subjoin a few examples of proper names.

Benjamin, *Ben*; Robert, *Rob*, *Bob*; Joseph, *Joe*; Juliana, *Jill*; Timothy, *Tim*; Richard, *Rick*, *Dick*; Edward, *Ned*; William, *Will*, *Bill*; Henry, *Harry*, *Hal*; Alexander, *Ellick*; Thomas, *Tom*; Margaret, *Meg*, *Peg*; Elizabeth, Eliza, *Bet*, *Bess*, *Betty*, &c.; Sarah, *Sally*; Maria, Mary, *Molly*, *Moll*, *Poll*, &c. &c. Some of these contracted forms belong to the lower orders of the vocabulary, like all those called flash or cant terms; but others have all the dignity of polite usage. What has thus happened to proper names, also happened in former times to common nouns and to all words; and is still their fate in the language of the vulgar, and in the Saxon-like literature of the uneducated members of society.

Sect. IV.—Of Verbal Corruptions.

These are in many respects identical with verbal contraction; but there are many changes of words from their original form which could not be included under that denomination; and, therefore, a few separate remarks may be applied to them here.

1. Words that are new, strange, and unusual (as all foreign terms are when first imported and adapted both to the ear and the mouth) are most liable to be corrupted or changed from their original form. There is an idiom in the sounds and in the pronunciation of every people, as well as in their phraseology; and they naturally bring the sounds and pronunciation and words of other languages (when introduced among them) to their own idiom or manner. The French (as the Greeks did before them) do so professedly and systematically; and all people, however unintentionally, do so to a considerable extent. Hence the reason why words adopted from other languages are often so much disguised, like foreigners in the costume of the country, that their original features can hardly be recognised. Who would suppose, for instance, that our *yes*, *yea*, *ay*, are the French *oui*? There is not a single letter the same. The same thing

would happen to words of recent importation, if we did not, by a sort of fashionable pedantry and servility in borrowing almost peculiar to us, put the new patches of French orthography as well as French pronunciation upon the old garment of our language, which was sufficiently motley before; for no confusion of tongues or mixture of all the dialects of Babylon could well equal it in anomalies.

2. Words that are long and hard or difficult are always liable (before language is fixed by grammars and dictionaries) to be much corrupted, or changed from their first form. This has been already indicated.

3. Words much in use, or which frequently pass from mouth to mouth in the hurry of common discourse, are exceedingly liable to be corrupted. Hence, all familiar household words (and that part of our language which has descended from Saxon times consists chiefly of such) are usually much more metamorphosed in process of time than the learned or literary and scientific terms of a people: hence, also, the etymologic difficulty attending the particles of every language.

4. The terminations are the parts of words which are most liable to be corrupted, as is evident from a careful inspection of any given number of terms. The physical reason of this seems to be, that all men, being naturally idle and careless, are usually impatient to get to the end of any thing they have to do or say; and therefore hurry the one out of their hands and the other out of their mouth badly finished. The above fact, as well as that immediately preceding it, has been treated of by Horne Tooke with all the acuteness and dexterity which he applied so successfully to his subject, when his understanding was not biassed by theory.

5. There are many verbal corruptions which originated not in carelessness, hurry, or mere mispronunciation, but in deception occasioned by similitude of sound, in new, strange, or foreign words, to that of some others well known: thus, Chartreuse, was corrupted into *Charter-House;* asparagus, corrupted into *sparrow-grass;* reticle, *ridicule;* lustrino, It. a shining silk, corrupted into *lutestring;* Benzoin, *Benjamin;* lanterna, corrupted into *lanthorn*, as there happened to be horn in the old lantern, &c. &c. Thus did sheer ignorance produce many strange corruptions, as well as an etymology contemptibly absurd.

6. It is with the ignorant and the uneducated that the grossest verbal corruptions chiefly originate and abound; hence they have, for the most part, a radical meanness and vulgarity about them (unless they have descended from Saxon literature, and possess the dignity of Gothic antiquity); for they never possessed sufficient merit to rise to any office of distinction or station of respectability. Not to adduce such striking instances of gross corruptions, as *bamboozle, bother, balderdash, rip or rep* (i. e. *reprobate*), *demirip*, &c. &c.: even such instances as *hint*, i. e. *intimate, get, git, gist* (i. e. gesta, i. e. res gesta), &c., are rather low words: and hence the difficulty of supporting the familiar or middle style with sufficient dignity: a task to which neither the genius of Swift nor the taste of Addison was fully equal.

Sect. V.—Of Ellipsis, or Syntactic Abbreviation.

That which is here indicated has the same relation to composition, i. e. to sentences and members of sentences, as verbal contraction has to single and separate words: the one is the leaving out of letters and syllables; the other is the omitting of whole words. Both are to be accounted for in the same manner; both originate in carelessness, or hurry, or the love of ease, natural to all men; who usually take the shortest cut to the object of their thoughts and affections, and employ elliptic modes of expression, for the same reason that they adopt short-hand and other contractions or abridgments of labor. This is ever their short, direct course, when engaged in good earnest about their wishes and wants, their business and necessities. From various causes, manner, or style, will differ among individuals and among nations: that of one may be exceedingly full and redundant in expression; that of another may be as remarkable for shortness and abbreviation: some from mental taste and habit are lavish of words, as Cicero; others are sparing of them, as Sallust. There are overpowering temptations to verbal redundancy and prolixity; as when attorneys and reviewers, or, perchance, encyclopædists, are paid so much per sheet; and there are temptations to the opposite extreme, as when the writer has to pay for an advertisement; for his words are likely to be few, even if not well ordered. But all such considerations produce no sensible effect on the language of a people, which is always tending to abbreviation in all its modes of expression; for there is this difference between the contraction of words and that of expressions: the former may be checked in process of time, the latter never can be checked; and though there be inconveniences as well as advantages attending this elliptic process, it is amenable to no grammatic law, and, therefore, is always in full operation.

That which is now under consideration was too obvious to escape observation, and therefore it has been frequently noticed by philological and metaphysical writers, as, for instance, by the ingenious Tucker: it was familiar, indeed, to mere grammarians; but Mr. Horne Tooke has treated of ellipsis in such a clear, full, and satisfactory manner, that it is unnecessary to enlarge on the question in this place, and therefore, a few illustrations will suffice.

It is difficult (if, indeed, possible) to select a single sentence or expression which is not elliptic. Take such instances as the following, which happen to occur at the moment: A prince of the blood, i. e. blood royal, or royal blood. a man of color, i. e. dark color; a man of rank, of family, of fortune, &c., i. e. of high rank, of good family, of great fortune, &c. Nor is the ellipsis filled up by thus supplying such omitted terms, for there is hardly a single word, if, indeed, any word, in any single expression, which had not, at one time or other, more words connected with it; which were dropped, because the mean-

ing of the expression having been once well established and effectually associated with some of the leading terms, the other could be omitted, and yet the signification retained. For example, in the expression, man of quality—*man* is a contraction of human, which requires being, or some equivalent word, if the ellipsis be filled up, to be connected with it: then *quality* (a contraction of equality, as qualis is of æqualis) manifestly requires to be connected with other words; for without their assistance, it could not express the meaning which is now suggested or indicated by it. There is, in reality, ellipsis (i. e. something left out) not only in every expression, but in almost every important word; such as forma, (meaning beauty) i. e. forma venusta; libel, i. e. libellus famosus, &c. &c. And to each of such words, the synecdoche of the grammarians (that is, a part put for the whole, or, as the word implies, something that is not expressed is implied in or to be taken with that which is expressed) as really belongs, as in those cases where they have applied the term. For example, famosus requires malus, or some equilent term; or rather, fama, the noun on which the adjective is formed, requires mala; for fama of itself means merely a saying or report: when, therefore, a dyslogistic, i. e. taken in a bad sense, it had originally mala or some equivalent word connected with it.

Not to dwell longer on what is so very obvious, that proof and illustration are alike redundant; this seems the proper place to explain a matter connected with it, not quite so evident, and which, therefore, has been very little considered; not only by the common class of writers on philology, and logic, and metaphysics, but even by the acute Horne Tooke, whose antipathy to such writings as those of Harris and lord Monboddo seems, in some instances, to have obscured his understanding or biassed his judgment. That all words have originally a distinct, separate, independent meaning of their own, is a point which he has labored with as much success as acuteness; but there is another consideration which, so far as we remember, he has overlooked, or which he has refused to admit, viz. that there is a syntactic as well as verbal meaning; i. e. there is a meaning effected in composition, which connot exist without it; for no word or number of words can, by any possibility, convey that signification which is conveyed by a sentence, any more than the figures of arithmetic can indicate separately what they do by every possible mode of combination. The supposition, indeed, would be as absurd as to believe that a thing can be and not be at the same time. Now, though we cannot say that the meaning of words in composition, or when put together to make a sentence, is independent of that meaning which each of them has separately (as may be inversely affirmed), yet we can say, and do affirm, that that the one is wholly distinct from the other. And, if this fact be lost sight of, we are likely to fall into as great errors as in supposing, with Harris, that many words have no meaning at all till they are put together; as if composition had a creative power of producing something out of nothing. This is so absurd as hardly to merit notice; but, if we do not attend to the distinct meaning produced by the combination of words, we shall be involved in not only etymologic and grammatic, but logical or metaphysical absurdities, such as those which are so plentifully spread over grammars, and dictionaries, and metaphysical disquisitions. For instance: the real attempt (a very unsuccessful one) of almost the whole of the Herculean labor of Dr. Johnson is to give, not, as it professes, verbal, but syntactic meanings; and for the same reason that it assigns ten, twenty, or thirty significations to one word, it might have assigned as many hundreds. It is, indeed, as so often pronounced, a *great* work, but it is not great enough by many thousand degrees for its real though not professed purpose; in reference to which it is truly *little*.

Syntactic, being entirely distinct (though not independent of the verbal as that is of the syntactic) from verbal signification; it follows that the elliptic process can proceed almost, if not altogether, interminably, without absolutely defeating (though it may and often does mar) the purpose of language; so that, in process of time, there is, in every sentence, every member of a sentence, every expression, and almost every word, much more implied than is expressed; much more indicated than is really signified by the sign employed; which acts as a prompter rather than reciter or narrator. Mr. Dugald Stewart is not far from the truth when he says, that the office of language is not so much to convey ideas as to call up trains of thought in the mind. The only thing about the statement to which we demur, is the term *office* (as if such were the original design and use and formation of language), and the subserviency to a particular theory intended by the remark.

Sect. VI.—The Mutations of Verbal Signification Considered.

That the significations of words, as well as their external form (their spelling and pronunciation), are changed in the course of time, is abundantly manifest. Mr. Horne Tooke, indeed, asserts—'Every word retains always one and the same meaning. Unnoticed abbreviation in construction and difference of position have caused the appearance of fluctuation, and have misled the grammarians of all languages both ancient and modern.'

That a word generally retains one and the same meaning is certainly true; but that every word always retains one and the same meaning, is a proposition contrary to the most decisive evidence that can be obtained on such a subject. Indeed it would be very unaccountable if all the grammarians of all languages, both ancient and modern, had been misled by mere appearances to believe that words have secondary as well as primary meanings, if no such distinction really exist. But the question admits of being easily settled by obvious and indisputable facts. Sycophant, for instance, originally meant an informer (one who gave information against persons exporting figs, the exporting of which was forbidden by law at Athens), now it means a flatterer: heathen originally meant of or belonging to a nation (like Gentile from Gens): pagan originally

meant a villager; but both these terms have long meant an idolater or worshipper of false gods: Cæsar, at one time was a proper name (and, perhaps, before that, meant having bushy hair), but it has long meant, as in Germany, Kaiser, and in Russ, Czar, an emperor; which word, emperor, originally meant the commander or general of an army. A hundred such instances might be easily collected. The question here is about a fact; not the manner of accounting for it, or the process by which it was effected; which is, perhaps, after all, what Mr. Tooke intended; so that we may have been all the while contending with a phantom,—which, however, it is worth while to put down.

The reasons of all such shiftings and changes of verbal signification are very obvious after a little enquiry and reflection. Indeed, they have already been virtually explained; and therefore, to avoid repetition, we shall only subjoin a few remarks. As almost every expression (if there be any exception) is elliptical; so, with almost every word (if, here, also any exception exist), there are several ideas associated in the mind of those who employ it, besides the individual idea which it was intended to indicate. The reason of this is too obvious to require any metaphysical abstrusity of theory or of explanation. There is no such entity in either the natural or moral, physical or metaphysical world, as disconnected individuality. There is not any one single entity, be it an object of our senses, a sensation, an idea, a perception, a notion, or whatever we may choose to call it, which can exist alone or in absolute solitude and separation from company. However, much, therefore, it may be intended as the sole or exclusive object of indication by any verbal sign, or by any contrivance whatever, it is after all but one of a flock or group: it may be the first or largest of the flock; it may be the most prominent figure in the group; it may occupy the fore-ground in the representation, but it is always accompanied by a number of other entities. Hence what is called the principle of mental association, or the association of ideas in the mind, so liberally philosophised since the days of the philosopher of Malmsbury.

The fact above indicated, i. e. the complex or gregarious nature of ideas, is the origin of many shiftings or mutations of verbal signification. Here a single illustration is better than a thousand sentences. Take an instance already adduced. *Heathen* primarily means of a nation; or, taken substantively, i. e. elliptically, one of a nation; and, in the plural (ethnicoi, as it occurs in the New Testament), the *nations*: but the *nations of the earth* were all considered, by the Jews, idolaters, or worshippers of false gods: the word for nations was so associated from the first with this idea, as to be, in process of time, identified with and indicative of it only. This Jewish idiom (with many other Jewish notions and idioms) accompanied the Christians (who were, at first, nearly all Jews) from Judea into Europe, where it remains to the present day: and in the use of all such words as Heathen and Gentile, we, *Christians* and *nations* as we are, speak after the manner of the Jews. Take another instance of a similar nature and origin: *Pagan* primarily means a villager, a countryman; or, as we have it corrupted through the medium of the French organs of speech, a *peasant*: but the *peasants* continued in the religion of their fathers; and worshipped Pavor and Pallor, and Pan and Priapus, in the old way of their first faith and early associations, long after the inhabitants of Rome and of the large towns had turned from Heathenism to Christianity. Hence, the word for villager or peasant was associated in the minds of the Christians, i. e. the town's people, with the idea of idolater or worshipper of false gods; and, being thus associated, it was soon identified with and exclusively indicative of that idea, like the term *heathen*. A thousand such illustrations might be given of the same process, of a similar changing or shifting of verbal signification; so that Horne Tooke wrote more confidently than advisedly when he asserted, that every word always retains one and the same meaning. It is true, as he supposes, that abbreviation in construction and change of *position* do cause appearances of fluctuations, where no fluctuations really exist; but there are many changes of verbal meaning which cannot thus be accounted for, and which are explicable only on the principle of the association of ideas in the human mind, resulting from and answering to the complex nature of things as existing in the universe, and, therefore, as presented to the human senses.

Metonymy, like synecdoche, as handed down from antiquity, is mingled with error; but it has evidently a basis or substance of truth; and neither Quintilian nor Vossius was wide of the mark of correct definition, when it was defined by the first, 'The putting of one word for another,' and by the last, 'A trope, which changes the name of things that are naturally united, but in such a manner as that one is not the essence of the other.'

Sect. VII.—The different kinds of Mutation in Verbal Signification.

These may be summed up in the following particulars:—1. When the name for a class of beings comes in process of time to indicate a circumstance or peculiarity connected with them: as, *Heathen* or *Pagan*, to denote Idolater; Scythian, Goth, Turk, Tartar, Vandal, &c., to denote barbarity and cruelty, or any person remarkable for these qualities: *Jew*, to indicate any one remarkably false and overreaching, &c. &c. Here a hundred instances might be given, all agreeing as to genus, but differing as to species.

2. When names, originally descriptive of office, agency, &c., come to be merely obscure titles or empty compliments: as, duke, marquis, count, earl, lord, knight, squire, Mr., Sir, madam, lady, Miss, &c. &c. All such words may be compared to the Roman emperors, who were great whilst living, but who acquired deification by death.

3. When old names remain, though that to which they were originally applied, and of which they were descriptive, has ceased, or has been superseded by something else: as, paper,

originally the name of an Egyptian flag or leaf: volume, i. e. something rolled up—a scroll; burg, burgh, burrow, was originally a fortification or fortified place; province originally signified a conquest, or country gained by successful war. Words of this description are very numerous.

4. When words, expressive of action or quality, are appropriated to objects as common or proper names. This is the most prolific origin of verbal multiplication or vocabular augmentation; for thus an indefinite number of nouns are produced by a few verbs and adjectives: thus, *fact*, *feat*, *fight*, *fit*, &c., are all originally one word; and thus the names of many animals and natural objects, as well as of metaphysical entities, are resolvable into one adjective, or one verb; which one adjective or verb is so exceedingly diversified in spelling and pronounciation, partly by design and partly from accident, as to seem not one and the same word, but a great multitude of separate and independent words: hence, one of the causes of tautology, inanity, obscurity, and absurdity, so often observable in the speeches and writings of men.

5. When a word shifts from a primary to a secondary meaning, or, when it passes over to a concomitant idea, or from the cause to the effect, or vice versâ. This is essentially the same as 1, only in a more comprehensive form to prevent mistake.

6. When a word is employed metaphorically; for the very term metaphor, as also trope, imports a changing or turning of the word to another use than that which it originally had. Many words have lost their literal, and retain only their metaphoric import or use; many have passed back from their metaphoric to a literal, or more properly to an unmetaphoric, application.

Sect. VIII.—Verbal Diversities as to Rank or Respectability.

As the members of a community range in different classes of political rank, so do the words of a language. There are here, also, high and low and middle classes. On these distinctions a few remarks will suffice.

1. A large class of the lower orders of words has been already indicated: for those gross verbal corruptions which have originated with the ignorant and the uneducated (and which have not descended from Gothic antiquity, when ignorance had the honor of being universal) are radically vulgar, and permanently doomed to hopeless degradation.

2. Many words are low or vulgar for the same reason that old-fashioned garbs are so considered; for there is a fashion in language as in other things, and, like that of the world, it is ever passing away. New terms and expressions and modes of speech are constantly displacing the old, which linger among the lower classes long after they have been discarded by those who are at the fountain of influence; and the very circumstance of obsolete words and expressions being found only, or chiefly, among the lower classes in society, stamps their character and seals their fate. Thus the same words, which are very honorable in one dialect of a language and part of a country, are very dishonorable in another; and this forms one of the most obstinate difficulties which the natives of Scotland have to contend with, in speaking and writing English agreeably to polite usage: for, as the dialect of the North is older by three or four centuries than that of the South, persons accustomed to the old-fashioned dialect are apt to imagine that they are keeping the very best company when guilty of employing most vulgar and disreputable expressions. This fact accounts not only for the Scotticisms, but for the vulgarisms so often detected in the productions of those beyond the Tweed, who have written with freedom and energy; as it accounts also, on the other side, for the artificial stiffness and polished feebleness of those Scottish authors who sacrifice all to taste—who dread nothing so much as the imputation of vulgarity, and who covet nothing so much as the reputation of elegant writing. It would be easy to produce instances; but they might appear invidious.

We have noticed that many words become vulgar in process of time, merely from being old-fashioned; but old fashions are frequently brought up again; and there is a sort of sentimental archaism raging at present among the lovers of the olden literature, who, ever and anon, cite an obsolete phraseology for the very nonce of showing its whilom beauty, too long suffered to wrinkle unadmired in neglected desuetude. If utility could be put in competition with sentimentality, we would address a word of enquiry, or of exhortation, to these admirers of the antique in literature; but the fit will not last long; for the sentimental passion is extremely inconstant: and though some words that had become both vulgar and obsolete, have been thrown up to the very top of fashionable literature, there is some danger of a re-action, and that many of the happiest phrases of Shakspeare will be hackneyed into contemptible vulgarity.

3. Many words become vulgar, in course of time, in consequence of being associated with gross objects, actions, and ideas; and the notion of grossness is every day becoming more fastidious in a state of progressive refinement. This is one of the most operative causes of mutation in living languages: and it is amusing to observe the variety of attempts that are made to clothe gross entities and vulgar ideas in decent and polite phraseology, and the rapid succession of terms that are first degraded and then discarded in the performance of this ungracious duty. Not to present the most obvious, and, therefore, the most disgusting instances, i. e. to our refined notions and sensibilities, take the following: *guts* was, at one time, a very decent term, and fit to appear at the very top of Saxon literature; but it became so very rude, upon long and familiar acquaintance, as to be wholly unbearable in any genteel family, and was turned off for no fault in the world but vulgarity: its place was supplied by *belly*, which was long considered a very well-bred term, and fit to appear in the very best company. But, having become disgustingly vulgar, it has also been turned

out of good society; and, for the present, *stomach* and *abdomen*, two learned foreigners, supply, between them, as well as they can, the place of *belly*; but they are only upon trial, and there is no chance whatever that they will long give satisfaction. It is supposed, indeed, that genteel people, finding so much trouble with such attendants, will contrive, in future, to do without them altogether. The fact is, that pantomime can be successfully substituted for much of the old vulgar drama of real life. It may be urged, that all this results from false refinement and delicacy, and that things ought to be called by their proper names. But this is a Utopian doctrine wherever there is such an entity as refinement; and when the question is about the degree, or the extent, who is to be judge or sovereign arbiter? The calling of gross things by their proper names is one of the privileges of the dead languages. Many instances similar to the above might be presented.

4. There is a set of low words and phrases which originate in wretched metaphor, or in allusions to things of a mean and sordid nature, such as the following: to *cram a subject* or *person* down any one's throat, or to *saddle* him with a heavy expense, or to *blink* his argument, or to *haul* him over the coals, or to put him in a *cleft-stick*. All such expressions can never be elevated into lasting dignity, however closely they may be associated with the genius of a Swift or a Butler (just as low-life may be associated with the genius of Hogarth); nay, though they may have the high sanction of parliamentary authority; and certainly, though not omnipotent, it can produce very extraordinary effects upon the verbal currency of the kingdom.

It is not necessary to indicate the respectable classes of words, which are of course too numerous to be easily arranged under distinct denominations. In general those terms and expressions, and modes of speech, which have the highest political, intellectual, literary, and scientific origin, possess the greatest dignity; for the general tendency is for words to sink from a higher to a lower—not to rise from a lower to a higher rank. Instances of the latter process are, for the most part, those of extraordinary individual merit. Thus, terms which were at first objected to as Scotticisms (such as the verb *notice*, &c.), and provincialisms, or as too technical and plebeian for classic composition, have, in course of time, risen to respectability in the language. All such words as are evidently useful, peculiarly convenient, distinctive, and descriptive, are sure of adoption, whence soever derived: they are a kind of professional adventurers that are sure to make their way in the world, and to come into general practice.

There is a very large number of words, found in books and dictionaries, which do not properly rank either with the high or the low—the genteel and respectable, or the mean and vulgar order: and which may be designated the *awkward squad*, or pedantic company. They never had any recommendation but their learned bulkiness and strangeness; and therefore they have been unsuccessful candidates for admission into general and established usage.

All our words, indeed, are, properly speaking, of learned origin; and many of them may have been introduced unnecessarily; but mere pedantry has had very little share in their introduction. They have, for the most part, been adopted, not from the classic, but from the low and (strange as the association may appear) philosophic Latin; not directly from the schools, or from mere scholars; but from the professions, and in connexion with the arts and sciences, and institutions, and inventions, and improvements, and business of life. The schools and colleges are, indeed, distant reservoirs of the regular supplies; but the cisterns whence they are directly received, the immediate channels of communication, are government, legislation, jurisprudence, theology, physic, &c. &c.; or, to include all in two words, the sciences and the arts. The great agents in the formation of our language (as of every language) have been authors (such as ever had any influence—for there are many writings that never had readers) and orators, legislators and lawyers, ministers of state and ministers of religion, physicians and apothecaries, inventors and improvers in all the sciences and arts which are in any respect connected with the wants and wishes of men. These are the influential, the assimilating, the transmuting agents of every people. Hence the obvious reason, as before intimated, why the English language is partly Greek, but chiefly Latin.

Sect. IX.—Vocabular Redundancy and Deficiency.

These extremes not only meet in the same language; but in proportion as it is remarkable for the one, it is also remarkable for the other. The most defective and least philosophic languages present these attributes so strikingly as to render them obvious to every enquirer. Take, for example, the Saxon, which is evidently what all languages are in a greater or less degree, remarkable for vocabular redundancy and vocabular deficiency: they have too many and too few words: they have too many of one sort and too few of another: they have a superfluous multitude of words of general import, but they are poor and destitute of particular, distinctive, and definitive terms: they will furnish you with a thousand names for one and the same entity (like the wonderful Arabic, to which its admirers give the praise of a thousand names for a sword); but there are a thousand entities for which they supply no name.

Both these opposite qualities are evidently great faults—not perfections in language. As to the one, there never, probably, has been but one opinion, and that sufficiently correct; but concerning the other, much error and confusion have prevailed. One will eulogize the copiousness of a language by exaggerating the number of names which it possesses for one object; another will affirm, that there are no two words, in any one language, that are precisely synonymous. The last is one of those positions which are so freely hazarded on all subjects, concerning which men consider themselves fully justified by established usage, in thinking little and saying much. The usual boast of verbal copious-

ness is as if a savage were to demonstrate how extraordinary his wealth is by exhibiting a thousand bows, kept for his own exclusive use; or as if a mechanic were to prove the amazing abundance of his tools by exhibiting a thousand hammers.

What is wanted is a sufficient number of apt tools or verbal instruments for every intellectual purpose. Tried by this test, the English has, perhaps, as little imperfection as any language, ancient or modern; though it has much useless and cumbrous copiousness of one description of terms, and considerable deficiency of another. It has (like every other language) too many terms of general, and too few of particular import: it has too many generic and too few specific and individualic terms: there are a thousand names for one logical genus; but many of the logical species and individuals have no names assigned to them. These two opposite faults (which are mutually proportionate) are two of the grand imperfections of language; and principal causes of much of the error, deception, misunderstanding, controversy, and other evils which have prevailed, and, probably, will prevail to the end of the world: for, if the moral nature of human beings were as good as that of angels, they could not rise to any very high state of perfectibility, without a much less imperfect instrument of verbal intercommunication than they yet possess. We are not very sanguine concerning remedies for any existing evils; but it is something to indicate their causes; the knowledge of which, if not available for any great improvement, is at least likely to remove the mental malady of false theory.

Sect. X.—Of Logical Diversities of Verbal Signification.

It is probable that the author would not have invited attention to the distinctions indicated above, but for a small publication entitled, A Table of the Springs of Human Actions, by the acute Jeremy Bentham.

There can be no doubt that the fact, so distinctly stated in the above publication, was previously as familiar to minds in any considerable degree logical, as was the principle of mental association before it was so distinctly stated by Mr. Hobbes. Indeed, some remarks of the latter (as, where he distinguishes among different names applied to the same thing, according as it is liked or misliked) apprcach so very nearly to the very distinctions employed by Mr. Bentham, that the author concluded, that the philosopher of Westminster had borrowed from the philosopher of Malmsbury.

All words that have any import (for some are as destitute of import as mummies are of life), are obviously distinguishable into passioned and unimpassioned, or passionate and dispassionate: the one indicate thoughts, the other sentiments; i. e. the one indicate mere perceptions or acts of the understanding (the dry pure light of reason, as Bacon terms it): the other indicate thoughts as imbued with (or, as Bacon terms it, drenched in) the affections: in the one, logical entities are presented, unaccompanied by any judicial decision concerning them, by the affections; in the other, they are accompanied by a sentence of approbation or disapprobation: in the one there is no indication of feeling, any more than if the mind were pure abstract intellect, incapable of emotion; in the other there is an expression of feeling, either of like or of dislike, either of pleasure or of displeasure, or (what is the lowest degree of the same thing) either of approbation or disapprobation.

As all words are either impassioned or unimpassioned; so all the former obviously admit of being ranged in two opposite classes, answering to the opposite states or acts of mind, which are expressed by the terms approbation and disapprobation, affection and disaffection. Hence, after separating all words into impassioned and unimpassioned, Mr. Bentham again divides the first division into eulogistic and dyslogistic, and thence denominates the unimpassioned class neutrologistic.

Perhaps the scientific purpose intended, is as well accomplished by these as by any designatives that could be invented. If there be any objection to them, it is, that they are not sufficiently popular. Perhaps approbative, disapprobative, and neuter or neutral, would be more obvious distinctions: non-probative might be objectionable. But what is wanted for such purposes is a designative phraseology of fixed and definite import: that which is least popular is most likely to ensure these qualities; and it is a tribute of respect due to inventors and improvers not hastily to reject or lightly to alter the terms employed by them.

From the very nature and general habitudes of the human mind; from the history of man; from our own observation and experience, it might be inferred that language has much of an impassioned and little of an unimpassioned character; that it is composed chiefly of eulogistic and dyslogistic, and contains few neutrologistic terms. Human beings as infallibly impress their own likeness upon their mental and moral, as upon their natural offspring. Hence the obvious similitude of idiomatic peculiarity to national character; or the correspondence which exists between the genius of a language and the genius of a people; for, according as the one is more or less impassioned (not to advert to other circumstances here), so is the other. But whatever natural, mental, moral, and political diversities may exist in mankind, they all agree in this, that they are more under the dominion of passion and prejudice than the guidance of reason: hence, every language (even the wisest, comparatively considered) has much of the attribute of absurdity: and every language (even the most neutrologistic) has much of a passionate and little of a dispassionate character. Every language, therefore, is very fit for rhetoric (taken in the widest possible import), but very unfit for logic; is an apt and powerful weapon of passion and prejudice, but a very defective instrument of reason.

It is of some importance to know things as they truly are, whether we can change them or not; for without that knowledge there is no chance of improvement. There is very little reason to hope for a perfect language; but in proportion as we understand the nature, and become ac-

quainted with the imperfections, of that which we have, the more are we likely to make a proper use of it; and to guard against the errors and prejudices and other evils which result from its unfitness for logical purposes: the important principle of utility will be more steadily kept in view; enquiry after truth will be more successful; discussion will be more fair and honorable, and the temper of disputants more candid. He who strives not for rhetorical display or polemic victory; who aims only at truth in theory and utility in practice; who wishes not to take any unfair advantage of the understanding of those to whom he speaks or writes, will endeavour to employ neutrologistic phraseology: and he who is determined to prevent, if possible, others from taking an unfair advantage of his understanding, will carefully watch the verbal movements, and will guard against the stratagems and assaults of impassioned language, consisting of eulogistic and dyslogistic terms.

Before leaving this subject, it may be useful to subjoin a few distinct remarks.

1. Out of the most multitudinous vocabulary, very few terms, comparatively considered, can be selected that are absolutely neutrologistic; i. e. purely intellectual, without any mixture of sentiment and prejudice and passion. The whole verbal multitude (with the exception of a mere handful of neuters), belonging either to the eulogistic or dyslogistic faction. They may be distinguished by many shades of character as partisans; but they are all approbative or disapprobative, respectful or disrespectful, admirative or contemptuous, fond or invidious.

2. The neutrologistic terms of a language are not only very few; they are liable to be corrupted. Take a recent instance: what adjective could well be more neutrologistic than radical was only a few years ago? But it had the misfortune to be adopted by a particular class of political reformers; and the consequence has been, that this humble member of the vocabulary is already strongly dyslogistic—deeply imbued with contempt and aversion; and, to many a mind, it is nearly, if not quite, as odious and exasperating as democrat or revolutionist. In this manner have thousands of words been perverted from their primitive simplicity of unimpassioned import; and when once thus corrupted, it is impossible for them to recover their original innocence. There are almost numberless instances of dispassionate, becoming passionate phraseology; but the instances of a contrary process or transmutation are very rare.

3. Eulogistics and dyslogistics are properly antithetic or rather antipathetic to one another; but many words are made to perform both parts: thus *saint* is a gracious eulogistic, as employed by one description of persons; but a most ungracious dyslogistic as employed by another: in the one it indicates sincere partiality; in the other sarcastic bitterness. Any eulogistic may thus be sarcastically converted into a dyslogistic: hence many terms have the two opposite characters at the same time, according to the tempers and opinions of the agents employing them: and hence, also, the radical and permanent change from the one extreme of fixed and universally received import to the other, which words experience in process of time; for either may be changed into the other; but in the struggle between what is termed the good and the bad sense of a word, the evil spirit generally prevails: for we have many examples of beautiful approbatives being changed in course of time into such ugly disapprobatives as to be quite frightful; but we have few examples of the contrary process. The reason is obvious: ridicule, if not the test of truth, is a test which few people are willing to have either their persons or their opinions tried by; and they as naturally shrink from odious charges. When, therefore, dyslogistic phraseology is applied to that in which persons are interested or implicated, they feel like a man accused of a horrible offence; who is willing to change not only his abode, but his very name, rather than encounter the imputation or bear the odium. Such words as *despot* and *tyrant* were once very loyal names; but it would be libel or treason to apply them now to such persons as they used to designate: *pedant* and *pedagogue* were once of very innocent and laudable import; but the persons so designated became ashamed of their antique name, and consider themselves insulted or persecuted when it is now applied to them: *parson* and *priest* were at no great distance of time very respectable and even honorable names; but instead of being proud of them, or making a noble stand for their eulogistic dignity against the lewd laity; the reverend gentlemen, to whom they were applied, became ashamed of them, and were willing to assume such a servile name as minister, or such a clumsy designation as clergyman; and, if these be fated to become dyslogistic, they also will be discarded.

It was remarked in another place, that the tendency is for the members of the vocabulary to sink, not to rise in the scale of dignity; as we have numerous instances of polite words and phrases becoming vulgar; but few or no examples of a contrary process. The same holds with the eulogistic and dyslogistic distinctions: we have almost numberless instances of the former sinking into the latter, but few instances of the latter rising into the former: and these few instances are only found when the persons or parties intended to be mortified and disgraced, by a dyslogistic designation or nickname, take kindly to it and glory in it; for then the malignant intention of their enemies is defeated, and a reaction commences in favor of the persecuted. *Christian* (as well as *Nazarene*) was perhaps at first a nickname; but the persons thus designated took kindly to the invidious distinction, and gloried in it, as well as in that ignominious peculiarity of their religion, the *cross*. The result was, that both rose in process of time into the highest estimation. *Quaker* was originally a nickname; but the *Friends*, who have always possessed too many respectable qualities to be a degraded caste (for in that case the most honored designation ever invented must have sunk with them), took, if not cordially, at least patiently and meekly to their nickname, and described themselves as the people commonly called *Quakers*: the result is, that Quaker is become an eulogistic,

or, at least, has lost all its dyslogistic import: and it is as respectable in common usage as their own fond *Friend*, with less quaintness.

All that was intended by these instances was illustration; which being, it is hoped, fully accomplished, it is unnecessary to detain the reader longer with the subject; but there is one other consideration that deserves to be stated.

It is now sufficiently apparent, perhaps, that, as language has little of a dispassionate and much of a passionate character, so many entities both physical and metaphysical have no neutrologistic designation: they are never presented to the understanding as mere strangers, whose character is to be discovered by acquaintance—for their name proclaims their character: it is either a badge of honor or a badge of disgrace; and those wearing it can have no interview with the understanding, absolutely free from all prejudice or sinister agency; but are introduced by the high authority of universal consent either as approved or condemned, as good or bad, as amiable or hateful.

The entities that have two distinct sets of names, i. e. eulogistic and dyslogistic, answering to the views and feelings of the persons employing them, are sufficiently numerous (even if no other cause existed) to produce incalculable diversity of opinion, endless controversy, and factious hostility.

PART II.

OF THE PARTS OF SPEECH OR THE GRAMMATIC DISTINCTIONS OF WORDS.

The parts of speech are usually said to be nine; but Mr. Tooke, as well as others before him, reduced them to two. Many of his remarks respecting them are not only acute but just; and it will be proper to examine minutely what he has advanced.

Mr. Horne Tooke (as well as Plato and other ancients, and Vossius and other moderns) resolves all the parts of speech into noun and verb. Thus far he is very explicit and very positive; but farther he has not proceeded. He affirms, indeed, that the verb is properly a noun; but he adds, that it is something more than a noun; what that something more or verbalising property is, he either could not or would not inform the world.

The opinions of Horne Tooke (though hitherto barren of any very important effects or useful results) have met with cordial reception: and all who now write about grammar acknowledge his authority. That hardy reasoner, the late Dr. Geddes, expressed the hope of being able to prove at some future period that all verbs were originally nouns. In this opinion the learned doctor was avowedly saying after Mr. Tooke, who also hoped to be able to accomplish extraordinary things at some future period. Numerous testimonies in favor of his opinions might be adduced from recent grammatic works. The following is a pretty good synopsis of his principles, extracted from a recent grammar.

'Every abstract term in language had, originally, a sensible, palpable meaning, generally a substantive meaning. Adjectives are, originally, either nouns or verbs. Pronouns take their rise from nouns, verbs, and numerals. Articles, or, more properly, definitives, are nothing but pronouns used in a particular sense, and for a particular purpose. Interjections are chiefly verbs; some are substantives. Adverbs, for the most part, originate in adjectives; a few are verbs and nouns. Conjunctions and prepositions are generally verbs and nouns.

'Nouns constitute, in general, the primitive words in all languages. Verbs are the first-born offspring of nouns. They are nouns employed in a verbal sense; at least the greatest quantity of words are of this class; a few, indeed, appear to have started into being at once as verbs, without any transmigration through a substantive state.'

If Mr. Horne Tooke had not entangled himself with *en* and *th* and *to* as meaning *do*, and as being necessary verbal adjuncts, it would have been easy to understand what (we should have supposed) he must have intended by verbs being something more than nouns. The following are examples of nouns, employed in a verbal sense, without the assistance of any verbal adjunct; gallant men *eye* the fair—*hand* them a chair, or *seat* them on a sofa—*back* their friends—*face* their enemies—*spur* their horses—*chain* their dogs—*kennel* their hounds—*bag* their game—*table* their money—*stake* their property—*shield* their honor, and *pistol* their enemies. A thousand such instances might be collected (without much trouble) of sensible, palpable, substantive meanings, and of nouns employed in a verbal sense: and it is probable that most of those words which now appear in the abstract state of mere verbs, were previously names of physical entities.

It is true, that, in all such instances as those presented above, there is ellipsis, i. e. something left out: gallant men back their friends and face their foes; i. e. do back their friends, and do face their foes; which is the old mode of the sentence, and that which we still adopt when we wish to speak emphatically; and even then there is much more implied than expressed; there is much verbal ellipsis: but for the same reason that the meaning remains when so much expression is left out, the same meaning might have been conveyed if the omitted expression had never existed. Children (as also foreigners) when beginning to speak our language, can make themselves understood by merely pronouncing nouns. My child, now playing round my table, has just said, '*Pa*, me book.' The fond father understood her as readily, and as perfectly, as if she had said, 'Please, my papa, will you give to me a book?' or, 'Please, my papa, will you take up one of these books from this table, with one of your hands, and then put it into my hands? for I wish to amuse myself with handling it and looking at it; but I am not tall enough to reach it, else I would not be at the trouble of asking you to hand it to me.'

If language had the rude origin which Mr. Horne Tooke always supposes, it is certainly very improbable that such a metaphysical part of speech as the verb, according to our modern notions of it (i. e. a word which signifies *to be*, *to do*, or *suffer*, &c.), had any distinct, separate, or independent existence. Add to this the fact that a very great number of verbs (as well as of

all the other parts of speech) are, without doubt or controversy, resolvable into nouns.

Now we believe full justice has been done to the statements contained in the Diversions of Purley; and now, perhaps, many persons would suppose the subject to be satisfactorily disposed of: all words are resolvable into nouns, and nouns are names, and what more would we have; for, as we cannot proceed ad infinitum, we must stop somewhere; and where so proper to stop as with the names of things? This has certainly some show of reason, and is much more satisfactory than putting the world on the back of an elephant, and the elephant on the back of a tortoise, and the tortoise on the back of nothing: it does happen, however, that where the difficulty seems to end with Horne Tooke and others, it only begins with the author: not that he hopes for a palpable demonstration as to the origin of language; but he does think that the noun requires to be explained and accounted for as much as any part of speech whatever. Granting that it is resolvable into no other part of speech, what is it to be resolved into? If it be the offspring of no vocabulary parent, nor the result of any etymologic transmigration, but started into being at once a perfect substantive or full-grown noun; whence, or how did it start into existence; What is the reason of its imposition or application? For if (as Mr. Tooke so often affirms) there be nothing arbitrary or unaccountable about language; if (as he also reiterates) that be a trifling etymology which does not assign the cause or discover the reason for the imposition of any word; it is doing nothing towards satisfying our philologic curiosity, to resolve all the parts of speech into the noun, and then tell us that a noun is a name. If said noun be in any respect descriptive (and without this, according to Mr. Tooke, it could be no significant part of speech) what is its descriptive property—how did it acquire its designative power?

Here also we shall attempt supplementary explication, that full justice may be done to the claims set up for the noun as being the sole, original, and pre-existent part of speech. The position of Mr. Tooke, that there is nothing arbitrary about language, we consider perfectly sound; and to assert the contrary is (we conceive) manifestly absurd. Even those unmeaning names with which we, in these modern times, are so familiar, called proper nouns, were originally descriptive of some quality, or expressive of some circumstance; and in the successive re-application of them there is an assignable reason for their imposition; for such names as Robert, John, Alfred, Hunt, Fox, &c., are not employed at random, as we might suppose such new and strange names as those fabricated by Swift; and even, for the employing of these, there is an assignable reason. Perhaps, indeed, nothing more was ever intended (where the understanding had any share) by affirming the meanings of applications of words to be arbitrary than that, where any one word is employed, some other word might have been used for the same purpose; or that terms are liable, in process of time, to have their signification changed; or that they may be differently understood, and applied in different ages, and even by different persons of the same age and country: and thus (as frequently happens in controversy) one person might affirm, and another might deny, that words are arbitrary signs; and be all the while disputing about nothing.

But there could be no controversy with Mr. Tooke, or with any who adopt his opinions, concerning the present subject of enquiry. He frequently states, as an essential etymologic principle, that there is a reason for the imposition of every word: i. e. that it has a descriptive significancy, without which, he insists, it has no significancy whatever. In what, then, does the significancy of the noun consist? Or, in other words, whence does the noun itself derive its existence? This question seems to admit of an easy and satisfactory answer in reference to a certain class of words, formed by what is called onomatopœia, or imitation of the sound: such as buzz, hum, grunt, croak, cluck, click, clock, clang, clink, clash, whir, whiz, cuckoo. Many more might be presented; but these are sufficient as a specimen, which is all that is intended here. If such words be considered nouns, here is a satisfactory origin of the noun (and perhaps, after all, of the whole of language); for we have only to suppose the letters that indicate, to the eye, the sounds of which such words consist, contrived (arbitrarily, or conventionally, if you will—for other marks might have been invented and employed), like the signs in the gamut (and the one is just as much a philosophic contrivance as the other), merely for the purpose of literature; i. e. to extend the utility of the spoken by rendering it also written language. This is certainly the simplest manner of accounting for the origin of language; the simplicity is in such a case, if not a demonstration, at least a strong argument. The only reasonable doubt seems to be, whether onomatopœia could supply a sufficient stock or capital to begin the business of language with: all that the author will venture to affirm, is (for he is not confident) that upon the maturest reflection, aided by considerable enquiry, he thinks it neither impossible nor improbable, that such a small number of words, as seem to originate directly in an imitation of natural sounds, should be available for every verbal purpose; and that, in the slow process of ages, they should have multiplied into the multitude that now form the largest vocabulary with which we are acquainted.

It has been said above, if such words as *hum*, *buzz*, *croak*, &c., be considered nouns, we have, at once, in onomatopœia, a satisfactory origin of the noun as the first part of speech, and that from which all the other parts are derived: but a question still remains, ought such words to be regarded as primarily nouns or verbs? They indicate not any substantive entities, but sounds; and what are sounds but actions or motions, produced by certain impulses given to the atmosphere, whose vibratory movement acts upon the tympanum, or beats upon the drum of the ear. With hardly any exceptions, the imitative words, considered as nouns, are also verbs; there are many imitative verbs without any corresponding nouns; and in most of those imita-

tive words, which are both verbs and nouns, the former were evidently prior to the latter: as, *click, cluck, clack*, before *clock* and the noun *clack*, &c., &c. The fact seems to be, that the last is related to the first, as effect to cause; and that the verbal sense is not only first, in the order of nature, but the proper original signification; whence the substantive meaning is derived by metonymy, or by mental association, as intimated in a former part of the work.

It is impossible to study either the Greek or Hebrew language (not to mention any other), without perceiving, that if any verbs can be resolved into nouns, there are also many which cannot be thus disposed of: and though the doctrine of Horne Tooke seems, at first view, very convincing; the converse of it seems more evident when we prosecute our enquiries: for whatever may have been the origin of language, nouns in general evidently derive their existence either from attributives or from verbs; and, unless the testimony of onomatopœia be given in favor of the noun, as the pre-existent part of speech, we have no hesitation in affirming, that though many verbs and adjectives be derived from nouns; it is equally true, that all nouns are derived either from attributives or verbs; *i. e.* before they were substantives they were either attributives or verbs.

This whole enquiry is more curious than useful; and is important only as it serves to abate groundless confidence, to remove false theory, and to make us better acquainted with the meaning of words; for it matters very little what we call them (or what part of speech was first or last), provided we understand them.

It is wittily said by the author of Hudibras, that

> All a rhetorician's rules
> But serve him for to name his tools;

and it may be truly affirmed, that most of the grammatic terms and distinctions serve no useful purpose whatever: but, because they had existed in connexion with Greek and Latin, it was thought necessary or proper to transfer them to the English language.

The different sorts of words, or parts of speech, are said to be nine, viz., interjection, article, conjunction, preposition, adverb, adjective, pronoun, noun, and verb.

Sect. I.—Of the Interjection.

The interjection, or, as it is better termed, the exclamation, is hardly worthy of notice, being merely an expression of sudden and strong emotion; for which purpose almost any verb, noun, adjective, &c., may be employed; for the only natural exclamations are the vowel sounds, as enunciated by a sudden action of the heart, when strongly excited by surprise, joy, grief, &c. Perhaps these natural, unpremeditated expressions of strong emotion (which are found, with very little diversity, in all languages) ought to be considered as having assisted in originating language; or as having supplied materials for its formation.

Sect. II.—Of the Article.

This term is so unmeaning, in its grammatic connexion, that there is some difficulty in imagining how it should have been employed. Grammarians affirm that there are two articles; the one definite, the other indefinite. *The* is said to be definite: it properly ranges with *this* and *that*, called demonstrative pronouns; in connexion with which it will be examined: and therefore, for the present, it is dismissed without further notice.

A is said to be the indefinite article, and to become *an* before a word beginning with a vowel: the fact, however, is, that *an* is contracted into *a* before words beginning with a consonant: and, at no very remote period of our literature, it remained unchangeably *an* before all words. The reason is obvious: *an*, like *ein*, Ger.; *un*, It., Fr., and Span., is merely *ane*, now *one*; i. e. *un-us*, Lat.; and *en*, Gr. *A* book is the same as *one* book; *an* ox is the same as *one* ox, &c., &c. How a numeral adjective can be indefinite is hard to conceive.

No person at all acquainted with English literature is likely to make any mistake in the application of *an* or *a*; and therefore directions concerning it are wholly unnecessary. For any purpose of necessity or utility that grammatic designation *article* can be well spared.

Some write, '*a* union,' &c.; others, '*an* union.' The sole reason of contracting *an* into *a* is euphony; and for the same reason that we write *a youth*, we ought to write or say *a union*, &c.

Sect. III.—Of the Conjunction.

This is another entity which merits very little consideration. Both conjunctive and disjunctive are intelligible terms; and there are words that might be thus designated if it were necessary to apply any designation to them; but conjunctive conjunction is an empty tautology; disjunctive conjunction is a manifest contradiction. *And* is a connective term, and so are other terms, not enumerated with it as conjunctions, entitled to the same appellation. *Either* contracted into *or*, and *neither* contracted into *nor*, are disconnective, and so are other words not usually enumerated as disjunctives; but many words, commonly called conjunctions, have as little claim to that designation as to any other which could be applied.

Sect. IV.—Of the Preposition.

This was, in its original application, sufficiently intelligible and significant; for it was equivalent to prefix; and simply indicated, that the words which it was employed to designate were frequently prefixed to other words. But, as often happens, this was, in process of time, lost sight of; other words besides prefixes were classed under the same designation, and then unmeaning doctrine was communicated; such as, 'Prepositions serve to connect words with one another, and to show the relation between them. They are, for the most part, put before nouns and pronouns!'

Sect. V.—Of the Adverb.

This is truly, as Horne Tooke terms it, the common sink or receptacle for all words that grammarians knew not what to do with, or how to range under the other eight parts of speech

What is an adverb? Lindley Murray shall answer:—'An adverb is a part of speech joined to a verb, an adjective, and sometimes to another adverb, to express some quality or circumstance respecting it!'

If any species of insignificance be more objectionable than another, it is that which is ostentatious of the appearance of learning, and which affects the forms of science. Better, surely, have no names than have such as mean nothing: better have no distinctions than have those which are absurd.

All the preceding five parts of speech are more worthy of being discarded than explained: the four that follow have a better claim to attention.

Sect. VI.—Of the Adjective or Attributive.

The last term has both meaning and utility; and when the grammarian says, 'An adjective is a word added to a substantive to express its quality: as, an *industrious* man; a *virtuous* woman; a *benevolent* mind;' there is no violence offered to our understanding: we perceive that the attributive word answers to the description given of it; it indicates some quality, either physical or metaphysical. Thus, in the expressions *white* paper—*black* ink—*sharp* knife, &c., physical qualities are indicated; but—*candid* temper—*acute* mind—*clear* understanding, &c., may be regarded as indicating metaphysical qualities.

A few remarks may be made concerning the attributive:—

1. The simplicity of the English attributive. It has no troublesome changes of termination for gender, number, and case, as in Greek and Latin, and in a less degree Italian and French, &c. Such changes may be necessary in Greek and Latin, &c.; but it does not follow that they are excellencies.

2. The English attributive admits of various changes for the purpose of indicating diversity of signification: these will be noticed under Prefixes and Affixes. It may just be observed here, that the three degrees of comparison, affirmed of the attributive (or adjective), are not unobjectionable: comparative and superlative are intelligible terms; but no useful purpose seems answered by the term positive degree. Such an unmeaning distinction, however, is less to be regretted than the irregularities in the comparatives and superlatives of some adjectives most frequently in use. Mr. Tooke justly remarks, that words most frequently used are most corrupted; and even in Murray's Grammar we find the following sensible remark:—'In English, as in most languages, there are some words of very common use (in which the caprice of custom is apt to get the better of analogy) that are irregular: as good, better, best: bad, worse, worst; little, less, least; much or many, more, most; near, nearer, nearest, or next; late, later, latest, or last; old, older, or elder, oldest or eldest.' Children and foreigners, beginning to speak our language, uniformly say, good, *gooder*, *goodest*; bad, *badder*, *baddest*; little, *littler*, *littlest*, &c., and as uniformly get laughed at as if they were guilty of some risible blunder; such slaves of mere custom are human beings; so much blind superstition and narrow bigotry have they in their nature; so arrogantly contemptuous are they towards modes (however rational) that differ from their own established forms; so foolishly fond and vain are they of their very faults and failings, their follies and imperfections. Anomalies are faults in language.

The English language possesses many comparative excellencies (and Horne Tooke could not, surely, mean any thing more, when he spoke of the perfections of language); but, in that grand fault anomaly, it is radically corrupt.

Such is the obvious importance or rather necessity of attributives to the significancy of language, that the author long considered them the first or pre-existent species of words, whence all the others derived their existence: and, certain it is (whatever Horne Tooke may have said to the contrary), that language could not advance many steps without employing adjectives, and, perhaps, after all, a few terms of this description, to indicate the more obvious and striking qualities of objects, constituted, if not the whole, at least part, of the original invention of language; for, as Mr. Horne Tooke justly remarks, it is the necessary condition of man to have few different ideas (which are quite distinct from the infinite variety of mental movement); and for indicating these ideas a very small number of words would be, in the first instance, sufficient; at least in as far as necessity only for verbal intercommunication was concerned. It deserves also to be remarked, that if many adjectives evidently originate in verbs and substantives, there are many verbs and substantives that as evidently originate in adjectives: and there are many instances in which it would be as difficult, or impossible, to trace the one, as it would be to trace the other, to any pre-existent state or character. It must be confessed, however, that, though not free from difficulty, yet, according to the preponderance of evidence, adjectives must be considered as originating in nouns or verbs: i. e. they are either nouns or verbs employed attributively. The adjectives derived from verbs are obviously the same as participles; which will be considered presently: and in the same manner that verbs become participles, are nouns formed into adjectives.

Sect. VII.—Of Pronouns.

'A pronoun,' we are told, 'is a word used instead of a noun, to avoid the too frequent repetition of the same word.' The name implies as much; and grammarians have thus asserted, perhaps, ever since grammarians existed; but both the designation and the definition are destitute of foundation. Something like proof seems deducible from what is termed the third personal pronoun: as, 'the man is happy; *he* is benevolent; *he* is useful.' But can we be favored with one proof or illustration drawn from any other pronoun? Show a single successful experiment with *I*, *We*, *Thou*, *You*, &c. Instead of what nouns are these pronouns used to avoid the too frequent repetition of the same word? Here is a short and easy method of terminating all controversy.

The noun to which the pronoun belongs can be omitted, and is often omitted; just as sentences may be rendered elliptic in many other respects and their meaning be preserved: but it does not follow that the words denominated pronouns stand instead of nouns; any more than it can be truly said that those words which remain in any elliptic or abridged sentence stand instead of the words omitted. We can frequently use *he, she, it, they*, alone; i. e. without expressing the nouns to which they respectively belong: just as we can frequently use such words as, this, that, these, those, former, latter, first, last, above, foresaid, &c. (which have all, in fact, as much claim to the title of pronoun, as those words on which it has been conferred), without expressing the nouns to which they direct attention; but if we wish to be emphatic or definite (as in legal writings for example), we express the noun, and do not trust it to be understood. Take the following illustration: The grammarians have delivered many strange opinions: they aforesaid (or the said—or—these) grammarians affirm, that such words as, *he, she, it*, &c., are pronouns, i. e. that they are used instead of nouns; but I, the author, do testify that the words referred to, are not truly pronouns, but (if they must have a name) connouns; for they and nouns are mutually related, not as principal and substitute, or president and vice-president, but as fellow-servants; and, if one of them be occasionally absent so as to occasion the work of both to be performed by the other, yet the one thus enjoying leave of absence must instantly re-appear, whenever called for, to secure greater definiteness.

The phraseology of the grammarians, such as, *definitive, demonstrative*, &c., indicate that they were not far from the truth: only what have been termed personal pronouns are as truly demonstrative, as those words are to which the term is applied. Their sole use is to demonstrate, i. e. to direct attention to some object or noun, which is always either expressed or understood: and, for the same reason that the noun is not always expressed but often understood, so is the connoun also frequently omitted in elliptic modes of expression. If we say in Latin, *hic homo*, it is equivalent to *ecce homo;* in English, behold man; yon man; that man; this man; the man, &c.: and, if the man be actually in sight (and those words called pronouns suppose the object in view either of the eye or of the mind; or rather direct the view to an object), *ecce homo*, or *hic homo*, *yon man*, &c., can be dispensed with; as the business of directing attention to him can be accomplished by pointing with a finger, or by some other visible sign.

Thus, what are called personal pronouns, relative pronouns, demonstrative pronouns, definite article, and some other words not classed under any of these designations, all serve one and the same purpose, i. e. they point to some object or some noun; and, therefore, they cannot stand in its stead. If it were necessary to give such words a particular designation, they might be designated demonstrative connouns, or simply demonstratives; but such unnecessary terms are more conducive to ignorance than to knowledge: and the words in question are properly verbs in what is called the imperative mood.

Pronouns, as they are called, may be considered in reference to number, gender, and case. There is, doubtless, some advantage in diversity of termination for the purpose of indicating singleness and plurality; yet that this advantage is much less than grammarians suppose, is evident from the little use made of numeral distinction in English connouns. Without any loss of meaning, but with much grammatic convenience, we have no numeral diversity in our relatives—who, which, what, that, and in what is called our definite article the. What numeral distinctions can appear more necessary than *thou* and *you?* Yet if *thou* had not found protection among the Quakers, and refuge in prayer, it would have wholly perished; and that royal pronoun we, threatens to supersede I; for established usage is, already, almost as shy of it as of thou.

Any sign of *gender* is as little necessary as of number: hence, except in the third person singular, no such sign exists. Lindley Murray (whose grammatic celebrity entitles him to some preference as an authority), indeed, tells us, 'The persons speaking and spoken to, being at the same time the subjects of the discourse, are supposed to be present; from which, and other circumstances, their sex is commonly known, and needs not to be marked by a distinction of gender in the pronouns: but the third person or thing spoken of being absent, and in many respects unknown, it is necessary that it should be marked by a distinction of gender.' Well then, what becomes of this necessity in the third person plural, which contains no sign of distinction in gender? The grammatist could not but perceive his statement to be too hazardous, unless accompanied by some saving clause; and therefore he subjoins, 'at least, when some particular person or thing is spoken of, that ought to be more distinctly marked: accordingly, the pronoun singular of the third person has the three genders, he, she, it!' There is a useless but embarrassing distinction attempted, if not already effected, between who and which; as if the former belonged exclusively to persons, and the latter to things and animals devoid of reason. Up to a very recent period there is the sanction of the best usage for disregard of such petty distinctions, which serve no purpose except to render English composition difficult.

We have seen how little the distinctions of number and gender are necessary: but the distinctions of *case* (except what is called the genitive) are worse than useless; for they cause much embarrassment: were it not for these, and a few other grammatic nuisances, the English language would be the simplest, easiest, and most manageable ever constructed.

The truth is, we have varieties of termination, called cases, for no reason whatever save that they existed in Greek and Latin; but, though such varieties of termination might be necessary or useful in these languages, it does not follow that they are either necessary or useful in English; which accomplishes by position the same purpose which the former effected by case: hence, fortu-

nately, we have no accusative case of nouns; which retain the same unchanged form whether nominatives or objectives. If every purpose of speech be accomplished, without change of termination in nouns, what can render such change necessary or useful in pronouns? If this, that, these, those, which, what, it, the, &c., be fully competent to the purpose for which they are employed, without any change, what could possibly incapacitate the other words of the same class for performing their office, if they appeared only in a single form? But it is useless to reason on the subject. We have *me, thee, him, whom*, &c.; merely because the monkish grammatists found me, te, eum, quem, &c., in the Latin language. Nor is it surprising that, in borrowing so much from it, they should have adopted more than was necessary; but why should we consecrate their blunders?

We object to all unnecessary intricacies in language; but we have no objection to any useful contrivance: hence what is called the genitive case has been exhibited in connexion with the connouns; because it is somewhat useful and strictly agreeable to analogy; for nouns in general admit of such a change of termination to denote possession, connexion, or relation, and to avoid a longer mode of expression: as, 'Mr. Tooke's work,' for the work of Mr. Tooke; 'Locke's Essay,' for the Essay of Locke. So, if either of these authors has been spoken of, and is therefore supposed to be in view, we might say, he's work; he's Essay. His, its, whose, should evidently, for the sake of analogy, be he's, it's, who's: and, for the same reason, you's is preferable to your; they's to their, &c., if custom would permit.

What, then, is this termination called possessive or genitive? It is a contraction of *is*, also anciently *es*; for what is now put *man's*, was formerly *manis*, or *manes*; and every one is familiar with the use of what is called the apostrophic sign, i. e. the comma put to indicate the omission of a letter. If, then, *'s* be a contraction of *is* or *es*, what is *is*? It is the sign of the genitive singular, third declension of Latin nouns; which was adopted by the Saxon writers to answer the same purpose in the native language which they were forming: and there can be no doubt that said *is* was originally a separate word, answering in meaning or use to *of* with us: which *of*, as well as the termination *is*, is a contraction or fragment of some compound word. *Man's* is the same in English as *hominis* in Latin: Man's condition is the same in significancy as, the condition of man; or the human condition. In the last instance, *human* is an adjective formed upon homo, anciently humo, by adding *an*; which *an* serves the same purpose as the termination *is*, or our *of*; i. e. it denotes connexion or relation. Our word *man*, as noticed in another place, is a contraction of *human*, and elliptical for *human being*: hence the reason why the following expressions are all equivalent: Conditio hominis, humana conditio; Man's condition, the condition of man, the human condition.

There is little or nothing gained by contracting *manis* or *manes*; *birdis* or *birdes*, into man's, bird's, &c. The reason of its adoption was, evidently, to distinguish what is called the genitive or possessive from the plural termination; for they were both *es* or *is*. When, therefore, *birdis*, for example, was contracted into birds plural, the possessive was put bird's; and this distinction has sufficient utility (at least to the eye, for it is useless in reference to the ear) to warrant its retention.

It has been observed that the plural was formerly the same as the possessive or genitive termination. The same is the case in the Latins. The terminations *æ, i, is*, are signs of the genitive singular and nominative plural: as Musæ, means both of a song and songs; Domini, of a lord and lords; Sermonis, of a speech and speeches; only the plural, in the third declension, is generally *es*: as, Sermones, &c.; but, originally, there was no difference between it and the genitive singular.

Sect. VIII.—The Noun or Substantive.

Here the name may be first considered. The grammarians of the learned languages have, with some show of reason, employed the terms noun substantive and noun adjective; i. e. a name that can stand by itself without any assistance; and a name that requires to be added to, or rested upon, another. There is, as usual, in these terms, a good deal of false theory, concerning which we cannot stop to enquire at present. But, though the grammarians of the learned languages have noun substantive and noun adjective, why should their vernacular imitators, after treating noun and substantive as synonymous, prefer the latter to the former? Probably the sole reason was, that the one seemed a more respectable looking word than the other. But substantive, besides being apt to suggest the notion of substance, is objectionable for other reasons, as being connected with false theory. Noun, (i. e. nomen, name), is perhaps as intelligible and appropriate a term as can be found for the purpose. It is desirable that names or designations should at least possess the negative merit of not being false guides; but in general we must proceed much further in our enquiries than they can conduct us. What then is that which we agree to call noun? How shall we define it?—Hoc opus! There is nothing so important, in a philosophic view, as correct definition; but, at the same time, there is nothing so difficult. 'A noun,' says the grammatist, 'is the name of any thing that exists, or of which we have any notion.' But if a noun be the name of any thing which exists, how can *nothing*, or any one of those words which denote non-existence, be a noun? And if the expression, any thing of which we have any notion, mean more than any thing which exists, it means too much to be a correct definition; for all words that have any signification, are names of things (either physical or metaphysical), of which we have a notion: and if it be affirmed that thing denotes a real existence, in distinction from attribute, action, relation, &c., then, also, the definition is not only incorrect, but manifestly false; for many words are called nouns which denote no such absolute entity; and the contrary supposition is not merely a philologic error, but

a cause of much metaphysical absurdity, which men give and receive as sound ratiocination.

We define a noun to be a grammatic designation, given not only to all those words which are the names of sensible objects, as, man, horse, bird, tree, stone, lake, river, city, &c.; but also to all those words which can be employed in a sentence as if they were names of such objects, as, hunger, reason, virtue, vice, nothing, nonexistence, &c. Any of the latter words can be employed exactly as the former in connexion with other words, to form a sentence: as, man is a rational animal: reason is very different from imagination: nothing is preferable to what is evil. Thus any word which can be put together as the agent or subject, the nominative or object of a verb, is entitled to the grammatic designation of noun: and we know not of any other definition which is admissible as correct.

All words thus designated, may be distinguished into nouns physical, and nouns metaphysical: many of the latter are not names of entities, but of nonentities; such as, fate, luck, chance, &c.: few of these, comparatively, denote absolute existents any way analogous to physical objects: they, for the most part, merely indicate qualities, motions, relations, thoughts, feelings, &c. &c. Many, even of those nouns which may be considered physical, are not properly names of things or absolute existents, but of motions: as current, stream, storm, wind, wave, billow, breath, sound, &c. &c.

This unsubstantial nature of what are called susbtantives, which 'give to airy nothings a local habitation and a name,' is certainly a great convenience in language; i. e. to enable men to talk without meaning, and 'say an infinite deal about nothing:' it is wonderfully subservient to effective rhetoric, and deceitful sophistry; but it is very unfavorable to sound reasoning and true philosophy; it must, therefore, be set down as one of the radical imperfections of language; and, in guarding against the deception of words, it is particularly necessary to examine their import. Many of them mean nothing; many are of uncertain import; many, being imbued with error and prejudice, serve only to impose on the understanding.

The importance of etymology consists in ascertaining the descriptive or distinctive import of words; which is not indeed of any great utility as to physical nouns; for they answer the purpose of designation, even if their significancy be not perceived. The names London, Paris, Thames, Rhone, sun, moon, like Dante, Milton, &c., answer the purpose of designation completely however ignorant we may be of their etymology: and it might be even argued (as it has been argued) with some show of reason, that the more of such ignorance exists, the better, as the etymologic meaning might only tend to deceive, by its erroneous representation; as, for example, in the designation Pacific Ocean. The case is very different, however, as to metaphysical nouns (and all metaphysical words, i. e. words employed for metaphysical purposes); for every thing depends upon ascertaining their significancy, or their insignificancy; i. e. whether they mean any thing or nothing; and whether their meanings present natural or chimerical ideas to the imagination, and true or false notions to the understanding. If metaphysical nouns be taken as if they were mere designations, like what are called proper names, without any regard to the reason of their imposition, the consequence must be error and deception; and this, as already intimated, is one of the principal causes of verbal imposture, and metaphysical absurdity, or false and deceitful philosophy; to which the only effectual counteraction that can be opposed, is sound etymology; though it will never, perhaps, accomplish all that Horne Tooke predicted.

We must also consider case, gender, and number, in reference to nouns. The grammatists seem, in general, half ashamed of the poverty of our language in this particular; and they have endeavoured, with the very best intentions, to enrich it with imaginary *cases*: and they aver it to have, at the very least, three cases, viz. the nominative, possessive, and the objective. Lindley Murray, indeed, informs us, that he was long harassed with doubts on the subject. 'The author of this work long doubted the propriety of assigning to English substantives an objective case; but a renewed, critical examination of the subject, an examination to which he was prompted by the extensive and increasing demand for the grammar, has produced in his mind a full persuasion, that the nouns of our language are entitled to this comprehensive objective case!'

But, after all, our language is simpler than even its Saxon and Gothic ancestors; for English nouns have no change of termination, commonly called case; save that which is called possessive, alias genitive; as man's for *of man*, woman's for *of woman*, &c.; and many English nouns do not admit even of this change; yet this defect of cases occasions no loss of significancy, no inconvenience.

The reader must be informed that *gender* means kind, and that there are three kinds of nouns, viz.; such as denote males, or he-animals; such as denote females, or she-animals; and such as denote neither the one nor the other, having no sexual distinction whatever: moreover, he must be informed, that in this instance the English language is richer than several of its neighbours; for some of them have both masculine and feminine gender, i. e. male and female kinds of nouns, bur no neuter kind. It seems, also, very necessary to inform him, that there are metaphoric males and females; figurative ladies and gentlemen. 'Figuratively in the English tongue,' we are told, 'we commonly give the masculine gender to nouns which are conspicuous for the attributes of imparting or communicating, and which are, by nature, strong and efficacious. Those again are made feminine which are conspicuous for the attributes of containing or bringing forth; or which are peculiarly beautiful or amiable. Upon these principles, the sun is said to be masculine; and the moon, being the receptacle of the sun's light, to be feminine. The earth is generally feminine. A ship, a country, a city, &c., are likewise made feminine, being receivers or containers. Time

is always masculine, on account of its mighty efficacy. Virtue is feminine from its beauty, and its being the object of love. Fortune and the church are generally put in the feminine gender!' This is the sublime of metaphoric gender, and sexual distinction, and grammatic sentimentality! There is, indeed, something of the whimsical in metaphoric gender and matrimony; for with our old, rude, ancestors, the Saxons, the moon was not the wife, but the husband of the sun.

It must be matter of self-gratulation to the sentimental French, that they are not driven to the necessity of figurative genders; as all their nouns are either masculine or feminine; so that they can appear to talk about ladies and gentlemen when speaking of battles and spectacles, plays and operas, metaphysical entities and nonentities.

The business of gender is a very serious affair in Greek, Latin, and even in Italian, French, &c.; but nothing can be more simple in English; for, except in a few instances, it is left, as it should be, to the meaning of words as indicative of the natures of objects, and not distinguished by different sets of terminations; which are more troublesome than useful. The grammarians, indeed, assert, 'nouns, with variable terminations, contribute to conciseness and perspicuity of expression.' We have only a sufficient number of them to make us feel our want; for when we say of a woman, she is a philosopher, an astronomer, a builder, a weaver, we perceive an impropriety in the termination which we cannot avoid; but we can say, that she is a botanist, a student, a witness, a scholar, an orphan, a companion, because these terminations have not annexed to them the notion of sex.'

If all these assertions were admitted, still the advantage of variable terminations might be denied; for it could be proved, that they produce a preponderance of inconvenience: but though they contribute to conciseness and perspicuity in such languages as Greek and Latin, in which the personal pronouns are seldom expressed; they are not necessary to perspicuity, and would contribute very little to conciseness, in English composition; and if the question be fairly tried, by a sufficient number of instances, the English will be found equal to any language (however incumbered with inflection) in conciseness and perspicuity.

What impropriety is there in saying of a female, that she is an astronomer, philosopher, &c., any more than in saying, she is a botanist, scholar, &c.? The truth is, that having, very unnecessarily, adopted a number of foreign distinctions of gender, we are apt to fancy that they are very necessary, or would be extremely desirable to all nouns; just as a little indulgence is apt to produce a restless longing after useless or hurtful luxuries: so that, instead of saying, 'We have only a sufficient number of variable terminations to make us feel our want;' we ought rather to say, we have a sufficient number of them to produce false notions and fantastic desires; and it would be much wiser to discard some we have, than long for more. Such titles as countess, duchess, empress, princess, &c., may remain; but what utility is there in actress, arbitress, benefactress, conductress, huntress, patroness, poetess, protectress, tutoress, votaress? Even the eyes and ears (by which grammarians are wont to judge) are surely better pleased with the expressions, she is a clever actor, she is the arbiter, benefactor, conductor, patron, poet, protector, &c., than she is a clever actress, she is the arbitress, &c.

To perspicuity, such feminine terminations contribute nothing, because the pronoun she, which accompanies the noun, indicates the feminine gender as definitely as it is possible for any termination to indicate the same thing: and as to conciseness; that, in most cases, is better effected by one termination than by several. Thus, to say, Attend, ye actors, is more concise, than, Attend ye actors and actresses: ye adulterers, is more concise than, ye adulterers and adulteresses, &c.

We have much reason for congratulation concerning gender in reference to English nouns; for they have fortunately escaped the troublesome incumbrance of variable termination; and, however the grammarians may lament their rude simplicity, there is not much danger that they will ever be changed into the likeness of Greek and Latin substantives.

As to *number;* the only change of termination in English nouns, besides the affix *'s*, to denote *of*, is that which is employed to indicate the plural; or, that more than one is meant. The plural affix has been already explained in treating of pronouns. There can be little doubt that the two terminations of singular and plural import have some utility; yet, that it is much less than we are apt to imagine, is abundantly evident from the number of nouns which we have with only one termination, without experiencing any inconvenience; as sheep, deer, swine, &c. In these cases, if it be intended to indicate the singular number, or that one is meant, the purpose is fully accomplished by prefixing *a;* which, as already shown, is a contraction of *an*, i. e. ‡ *ane*, i. e. *one*. In such a connexion, what is called (very absurdly) the indefinite article, answers a useful purpose; whereas, in ninety-nine applications out of 100, it is wholly useless; only, having been always accustomed to this, as to many other insignificant expletives, we should think composition strange and incomplete without it. In all such expressions as a book, a house, a horse, a table, &c., *a* might very properly be termed the insignificant article; which was probably the meaning intended by the phrase—indefinite article. The expression *a* sheep is as definite as *two* sheep, *three* sheep, *several* sheep, *many* sheep, *the* sheep, *these* sheep, *those* sheep, &c. So also, when the illiterate say, *a* shilling, *two* shilling; *a* foot, *two* foot, &c.; and we have not the least doubt, that, if all nouns had thus possessed only one termination, the advantage would have been considerable, not only as to simplicity and facility (for the distinctions of singular and plural, frequently cause an embarrassment), but also significancy.

A question long perplexed the author, which seems now to admit of an easy answer. Whence

originated the perpetual recurrence and useless application of what is called the indefinite article not only in English, but also in most, or in all of the modern languages? For if *a*, *an*, *un* (It. Fr. & Sp.) *ein* (Ger.) be, as they manifestly are, *one*, (un-us, en,) how, in the name of significancy, should they be connected with almost every singular noun? If singular mean *one*, why commit the tautology in almost every sentence of adding the adjective *one*?

The sole reason of this fact is, we believe, that the practice originated when the distinction of singular and plural did not exist; or, at least, did not generally prevail among nouns; and when it was as necessary to say *a* horse, or *one* horse, as *a* sheep, or *one* sheep: the habit of applying the numeral adjective ‡ *ane* (now *one*), *ein*, *un*, like many other habits, remained, after the reason on which it was founded had ceased. Many Latin nouns have no distinction of singular and plural in the nominative case, (and their accusative plural is the same as the nominative); and a very great proportion of Saxon nouns have, in spite of Saxon grammatists, manifestly no distinction of number. Like the nouns sheep, deer, swine, &c., if not restricted, they suggest more than one of a sort or kind to the understanding; and therefore it was necessary to join to them *ane* or *one*, when one was intended to be indicated; just as it was necessary to employ the numeral adjectives *two*, *three*, *four*, &c., when *two*, *three*, *four*, were to be denoted.

If, however, there were one regular plural affix to English nouns, we might felicitate ourselves in the possession of it as an important addition to our grammatic treasure; but, unfortunately, instead of being simple and uniform, it is such a jumble of anomaly as sets all principle and rule at defiance. The principal irregularities may be arranged under the following heads.

1. Some nouns have the obsolete plural affix *en*: as oxen instead of oxes; men, women, i. e. contraction of manen, womanen; which ought now to be mans, womans; children and brethren have two obsolete affixes, viz. *er* and *en*; each of which is, we believe, for *es*, adopted from the third declension of Latin nouns; and which we still retain, but generally contract it into *s*.

2. Nouns ending in *o*, have the irregularity of sometimes contracting the affix *es*, and sometimes not; as folio, folios; nuncio, nuncios; punctilio, punctilios; seraglio, seraglios; cargo, cargoes; echo, echoes; hero, heroes; negro, negroes; manifesto, manifestoes, &c.

This is such a petty irregularity, and at the same time so easily remedied, that it ought not, surely, to remain: let the *e* be uniformly dropped, or uniformly retained: the former seems the more advisable measure.

3. Most nouns ending in *f* or *fe*, are rendered plural by changing *f* or *fe* into *ves*; as, loaf, loaves; half, halves; wife, wives: but why should not these be loafs, halfs, wifes, staffs; like griefs, reliefs, reproofs, ruffs, &c.? If grammatic authority serve only to establish anomaly, it is itself a nuisance; and our understandings and our practice are more honored in the breach, than in the observance of its tyrannic laws.

4. 'Nouns which have *y* in the singular, with no other vowel in the same syllable, change it into *ies* in the plural; as beauty, beauties; fly, flies,' &c. But why should these not be beautys, flys, dutys, &c.; like key, keys; delay, delays, &c.?

This is one of the evils of having more than one alphabetic sign for one sound; and it is of recent introduction like many other anomalies.

5. Such irregularities as the following seem to have originated in the Saxon antipathy to polysyllables, so discernible in many words, which are reduced to the favorite monosyllable: foot, feet; goose, geese; tooth, teeth; louse, lice; mouse, mice; penny, pence; die, dice. But why not follow analogy, as children and foreigners do in learning our language; and say, foots, gooses, tooths, louses, mouses, pennys, dies, &c.? But how strange and ridiculous such words sound! exclaim all the dutiful subjects of established usage. But is it not much more ridiculous to be the slaves of mere custom, however absurd? Only accustom your eyes and ears and mouths for a single month, to the analogies of your own language, in those instances in which the strangest blunders have been consecrated into grammatic proprieties, and you will be reconciled to them for ever.

It is the custom at present, in adopting words from the learned languages, to preserve their learned plural termination. In this we act more strangely than our neighbours; for how are mere English scholars to know the meaning and use of foreign terminations? Why not make the plural of automaton, automatons; criterion, criterions; appendix, appendixes; medium, mediums; memorandum, memorandums; stratum, stratums; vortex, vortexes, &c.? Surely good sense is better than learned pedantry; and it is manifestly more pedantic than judicious to graft foreign peculiarities on a vernacular language; or, in naturalising learned strangers, not to make them conform to the manners of the natives.

Sect. IX.—Of the Verb.

This is the most difficult of all the grammatic entities. The name verb (verbum) means word; which latter is merely a corruption of the former. We have only to suppose, then, that this very formidable part of speech was designated the word, by way of eminence, on account of its vast importance. Nor is it worth while to quarrel with a name, when it does not indicate some egregious error or absurdity. If, then, a verb be a word, what is that word when considered as a part of speech? What is its grammatic character? Lindley Murray must reply: 'a verb is a word which signifies *to be*, *to do*, *or to suffer*, as, 'I am, I rule. I am ruled.' Other grammatists have attempted greater accuracy of definition; but their attempts have not been sufficiently successful to deserve notice.

It will probably appear to the reader very extraordinary, that the grammatist should define the verb to be a word; and instantly exemplify his definition by giving, not one word, but two or more words: as, 'I am, I rule, I am ruled.' The blunder is easily explained. The definition was not made for the English, or, indeed, for

any modern language, but for the Greek and the Latin; in which it can be strictly exemplified: as, sum, I am; rego, I rule; regor, I am ruled: so, also, if we take what is called the infinitive: esse, to be; regere, to rule; regi, to be ruled. In all these Latin instances the verb is one word; but each of the English instances consists of, at least, two words. This is another proof of the absurdity of transferring grammatic definitions, distinctions, and rules, from Greek and Latin to the English language; which is as truly ridiculous as it would be to give the history of Greece or Rome, with a few slight changes of names and dates, as a correct history of England. But how insignificantly diminutive would a vernacular grammar appear without the lucubrations of old Lily, or of Crates Mellotes, done into English! Hence that mass of absurdity which has been dignified with the name of grammar. Most of it was from its first existence (perhaps in Egypt or Babylon) dark and chaotic; and all of it as applied to the modern languages, especially to the English (so dissimilar to Greek and Latin), is as devoid of reasonableness and utility as the philosophy of Aristotle. To many persons such statements are redundant; and for the sake of brevity, as also of intelligibleness, to mere English scholars, we adhere as closely as possible to the English language.

The question then is, What is a verb? We deny that there is any such entity as a verb in the sense of the grammatists: i. e. one, single, separate, uncompounded word, which signifies to be, to do, or to suffer. But it may be replied, Have you not just admitted, that in Latin the definition holds, 'a verb is a word;' for sum, is one word; as also rego. True; but each of these is properly a compound word: i. e. two or more words joined together; just as if we were to write, *Iam*, *Irule*, *Iamruled*; or, *tobe*, *torule*, *toberuled*. The movable affix, in the Latin words, is as properly a distinct word as the prefix is in the instances *Irule*, *torule*.

Though, then, the definition 'a verb is a word which signifies to be, to do, or to suffer,' does hold as to Latin and Greek; it is not true, as to any language whatever, that one simple or uncompounded word can signify, to be, to do, or to suffer. The error of the grammarians originated in mistaking syntactic for verbal meaning; i. e. in supposing that one word can convey a meaning which requires two or more words. This error, productive of other errors, originated in ignorance concerning the elliptic or abridged state of language, as found existing among every people; for nothing was more calculated to deceive theorists, who would naturally suppose that one word performed the office of several; as if there could be existence without some existent concerning whom the affirmation is made; or action, apart from an agent.

We have already considered the difficulty attending the origin of language, and the origin of some words called verbs: and it would answer no useful purpose to detain the reader with another discussion of the same troublesome question. In all those words called verbs, which are manifestly nouns, there is no difficulty: as, '*to hand*, *to face*, *to back*,' &c.; 'I hand, we hand, they hand;' 'brave men back their friends and face their enemies.' In such instances, all that is necessary is to join two nouns; or a pronoun and a noun, or to prefix the preposition *to*, to convey the notion of agency.

Mr. Horne Tooke (as already noticed) holds, that every verb is properly a noun; and that it is something more than a noun: he intimates, moreover, that he agrees with the Stoics in considering the infinitive the proper verb, free from all incumbrance of number and person. It is difficult to conjecture what he really intended; but he seems to have considered the affix of the Greek, Latin, Saxon, &c. (in what is called the infinitive mood), as well as *to*, in the English, to be equivalent to *do*, or *act*; as if the expression, *to back* a friend, *to face* an enemy, were, *do* back a friend, *do* face an enemy. If such were the case then, *to*, and the Latin affix *are*, &c., are to be considered as properly the verb; and the proper enquiry would be, what is the nature of that which is thus connected with a noun to convert it into a verb? After the fullest enquiry and reflection, we are convinced that the verbal affixes, to what is called the infinitive mood, in Latin, Greek, Saxon, &c., are the very same as the simple adjective affixes: *are* is the same word, whether it appear in *amare*, to love, or *cellare*, of a cell: *en* (*ein*, Gr.) is the same word, whether it appear in † *loven*, to love, or *golden*, of gold. In all such cases the affix merely serves to connect the word going before with the word coming after; or to give notice that the word to which it is attached is to be taken in connexion with some other word for the purpose of conveying a particular meaning. In short, the affix in such cases answers the same purpose as our preposition *to*; which also indicates that one word is to be taken in connexion with another; and which, like the forementioned affixes, is doubtless a mere particle or fragment of a compound word.

If, then, the common definition, a verb is a word which signifies to be, to do, and to suffer, be wrong; what definition is to be received as correct? But though we point out the falseness or absurdness of an old doctrine, it does not follow that we must forthwith supply its place with a new one. It is impossible to put any thing sound and solid in the place of baseless theories; and the purpose of enquiry is generally answered when they are made to vanish away like dreams when men awake. We have just seen that there is no such thing, in the English language, as a verb; i. e. a word which signifies to be, to do, or to suffer; for, to express existence, possession, relation, agency, &c., two or more words are necessary; and whenever one word seems competent to the business (as in Latin, &c.), it is not a simple, but a compound word, i. e. two or more words joined together.

'Verbs,' we are told, 'are of three kinds; active, passive, and neuter.' The sole reason why such distinctions were ever applied to the English language, is, that they previously existed in connexion with Latin; but to suppose that the same distinctions will equally suit all lan-

guages, is as unreasonable as to attempt to make a coat to fit the moon in all her changes. We say nothing at present of the original character of such distinctions; for if they had been distinguished in their first application by absolute wisdom, they might be perverted into utter folly by being transferred to the English language. The distinctions in question have been discarded by the more sensible grammarians; who, instead of saying verbs are active, passive, or neuter, distinguish them into transitive and intransitive. The only conceivable utility in this distinction is, its subserviency to a grammatic rule; which says, verbs active or verbs transitive govern the objective case: as, truth ennobles *her;* she comforts *me*, &c. Here ennobles is considered a verb transitive, because the action passes over to the object; and if that be represented by a pronoun, it must be in what is called the objective or accusative case: but such instances as, *I* sit, he lives, they sleep, are denominated intransitive, because the effect is confined within the subject or nominative of the verb, and does not pass over to any object.

This distinction, however, might be very well dispensed with; for it would answer every purpose, to say, when a pronoun is the object of a verb, or that in which the action of a verb terminates, it must be in the objective case: as, 'I love *her*;' 'she loves *me*,' &c.; not, 'I love *she*;' 'she loves *I*.'

With all that avidity for multiplicity of distinction which characterises grammatists, there is a distinction which has wholly escaped them; though it seems of some use, and has long obtained the patronage of Hebrew grammar: it may be denominated the verb causative; and all we intend is elucidation. *Lay* is manifestly the causative of *lie*; for it is equivalent to, cause or make to lie: thus, also, sit and set; rise, raise, rouse; see, show, &c. &c. In this manner a great number of words are employed causatively, to avoid a lengthy mode of expression: as, to *run a hare*, for, to *make a hare run*; *show*, for, *make to see*, &c. In many instances the same word is diversified in spelling and pronunciation from the original form, when employed causatively: as, *show*, a diversity of *see; raise*, *rouse* of *rise; set* of *sit; lay* of *lie*, &c.: and thus many words are resolvable into one word, which do not seem to have any connexion. Many verbs, however, are employed both causatively and uncausatively, or, as commonly expressed, both as active and neuter, without any diversity of spelling or pronunciation.

'To verbs,' we are told, 'belong, number, person, mood, and tense.' This also is affirmed concerning English words for no reason whatever, except that the same grammatic position had previously existed in connexion with Greek and Latin. 'Verbs,' it is said, 'have two numbers, the singular and the plural: as, I love, we love.' Here, again, the example is at variance with the definition; for the distinction, as to singular and plural, exists not in the word love, but in the pronouns *I* and *we*. In Latin, indeed, the definition can be exemplified: as, Amo, I love; Amamus, we love. Here are two numbers, singular and plural; because the terminations of the verb perform the office of the pronouns in our language.

'In each number,' we are told, 'there are three persons; as,

Singular.	*Plural.*
First Person, I love;	We love;
Second Person, Thou lovest;	Ye or You love;
Third Person, He loves.	They love.

'Thus the verb, in some parts of it, varies its endings, to express or agree with different persons of the same number. In the plural number of the verb there is no variation of ending to express the different persons; and the verb, in the three persons plural, is the same as in the first person singular. Yet this scanty provision of terminations is sufficient for all the purposes of discourse, and no ambiguity arises from it: the verb being always attended, either with the noun, expressing the subject acting or acted upon, or with the pronoun representing it.'

It appears, then, that diversities of termination are not necessary to the English verb, as it is always attended either with a noun or pronoun; which noun or pronoun answers the purpose accomplished by termination in Greek and Latin: and for the same reason that the verb is without any variation in connexion with I, We, You, They, it might also have been without any variation in connexion with Thou, He, She, It: as, I love; Thou love; He, She, or It love; We love, &c. It is evident that the terminations or affix *est*, after Thou, and *eth* changed into *es*, *s*, after He, She, or It, answer no necessary or useful purpose; but occasion much embarrassment. Disuse these needless diversities of termination, and you discard at once nearly all the rules of syntax, or render them needless.

Whatever may have been the origin of the affixes *est*, *eth*, *es*—they are, evidently, nuisances in the English language; but perhaps the curiosity of the reader, respecting their adoption, may call for some explication. We find, in our olden literature, *eth* connected with all the persons and numbers of pronouns (*en* was also generally employed as an affix, at one time, especially in the plural number of verbs): as, I *loveth*, Thou *loveth*, He *loveth*, We *loveth*, Ye *loveth*, They *loveth*. From this, it is evident that *eth* could not be either a personal or a numeral affix: i. e. whatever it might indicate, if it indicated any thing, it could not denote number or person. After more enquiry and reflection than the question is perhaps worth, considered by itself, the conclusion in the mind of the author was, that the affix *eth* was corrupted from the Latin affix *at*, *et*, or *it*; or, that it is *Thau* (Gothic), *Thue* (German *Thun* infin.), i.e. Do affixed instead of being put before the verb, as it is at present, when employed. The last seems the more probable conjecture; for when *Do* is employed, the *affix* disappears; which is some approach to evidence, that the one was considered equivalent to the other, if not the very same: as, I do love, Thou do love, or dost love: he do, or doth love; not thou dost lovest, he does loves. Whatever may have been the origin of *est*, *eth*, *es*, contracted into *s*, they are manifestly useless and troublesome appendages.

The doctrine of *moods* is self-convicted of absurdity: for the grammatists are obliged to make such a confession as the following:—Though this mood (the imperative) derives its name from its intimation of command, it is used on occasions of a very opposite nature, even the humblest supplications of an inferior being to one who is infinitely his superior: as, 'Give us this day our daily bread; and forgive us our trespasses!' Opinions are divided concerning the exact number and proper definition of moods. Yet, with all the love of complication, an obvious distinction is omitted; for if what is called the infinitive mood deserve any designation, it ought to be called the impersonal verb; or the impersonal state of the verb; but the term impersonal was pre-engaged; being applied to what is evidently the third person of some verbs—or verbs that are used only in the third person.

In reference to Greek and Latin, the traditional doctrine of moods may be tolerated; because it serves at least the purpose of designating the various terminations of verbs, which must be committed to memory; but, in reference to the English language, it possesses no redeeming quality.

Tense is a corruption of tempus, contracted into time. The grammatic judgments have been wonderfully divided about tense; which is not surprising when we consider how much the subject has baffled the most metaphysical intellects; and that it extorted the following humble confession from St. Augustine: Quid sit Tempus, si nemo quærat a me, scio; si quis interroget, nescio. Mr. Harris has enumerated no fewer than twelve tenses; but more moderate grammarians are content with half the number; not without an apology for insisting on so many. 'Tense,' they tell us, 'being the distinction of time, might seem to admit only of the present, past, and future; but to mark it more accurately, it is made to consist of six variations, viz. the present, the imperfect, the perfect, the pluperfect, and the first and second future tenses!' Others, still more moderate, are content with half this number; and insist only on three tenses; the past, the present, and the future; others refuse to admit that there is a future or present tense; and some deny the existence of tenses altogether. In all such cases of diverse judgment and doubtful distinction, simplicity is an argument of considerable weight; so that, if there were no preponderating evidence, we would rather agree with those who hold that there are no tenses, than with those who assert that there are three, six, or twelve: but though the doctrine of tenses has, to some extent, realised itself; and we have, or seem to have, some notions of distinctions as to time, in connexion with verbs; yet it can be as clearly proved as the nature of the case admits, that no such distinction really belongs to them; and that, where such a notion does exist, it is wholly accessory or associated; not primary—not intended to be indicated by any changes which are made upon the words called verbs, in any language. The enquiry, indeed, is attended with no substantial utility, except as it serves to remove false theory; for nothing is preferable to absurd opinions: silence is better than loquacious impertinence. Before, however, we enter directly on the consideration of tense; let us first examine those words designated auxiliary or helping verbs, for the right understanding of these will, in a great measure, supersede the necessity of a formal disquisition concerning tense.

With respect to the auxiliary or helping verbs: viz. do, have, shall, will, may, can, let, must, be, two affixes must be noticed as being really all the changes of termination that properly and usefully belong to English verbs: viz. *ed* and *ing*. The last was, anciently, *ante, ant, and,* &c. (for there is great diversity of spelling in the *olden* literature) and was evidently borrowed from the Latin participle: *ing* seems merely a spelling of the same affix, accommodated to the nasal pronunciation that acquired possession of the English language after the conquest. The use of *ing* is precisely the same as the participle-affix *ans, ens,* in Latin, and *on* in Greek; and has precisely the same use, and is, in fact, the same word as the adjective affix *an, en,* &c.; for all the difference between what is called a participle and what is called an adjective, is, that the one is formed on a verb and the other on a noun; and this difference is, in many cases, so very slight, that the same word is considered either adjective or participle.

The corresponding, or rather the same affix, in the other languages, is, *ande,* Swed.; *ende,* Ger.; *ant,* Fr.; *ante,* It. From this view, it plainly appears, that as the Latins borrowed the affix in question from the Greeks, their literary masters; so the modern nations of Europe borrowed it from the Latins, their literary masters.

The affix *ed, at,* Swed.; *et,* Ger.; *ato,* It.; is evidently the same as that which exists in what is misnamed (for it is active as well as passive) the Latin perfect, passive participle. Thus, dubit-o, dubitat-us, is, with us, *doubt, doubted,* &c. &c. If, then, the English affix be merely that of the Latin; what is this Latin affix? We can hardly expect absolute certainty in such a matter; but we believe it is what is called the third person singular of the perfect, with adjective terminations appended. Thus, amat, he loves, amavit, he has loved, amavitus, a, um, contracted into *amat-us,* a, um. The *av* is a contraction of hab-eo: so that *amavit* is equivalent to, *love-have-he, she,* or *it; amaverunt* is equivalent to, love-*have*-they; or they-have-love.

Whatever distinctions may be interposed respecting 'the perfect tense not only referring to what is past, but also conveying an allusion to the present time,' every one knows that there is no distinction of meaning, or difference of application, between what are called the preterite imperfect and the preterite perfect in Latin. The reason is plain: *amabat* consists of the three same words as *amavit;* i. e. *am,* love, *hab,* have, and *at,* signifying agent or subject, he, she, or it, as determined by the connexion.

For the same reason that the preterites in Latin often appear to indicate past time or perfected action; so the English affix *ed* often appears to indicate the same; but unfortunately for distinctions, even of the simplest kind, the

definition propounded as if the English verb denoted action either terminated or not terminated, is not free from objections.

We have no wish to discard the affix *ed;* but it is evidently much less necessary or useful than grammatists would readily admit; for many verbs are destitute of it, such as *shut, set, thrust, spread,* &c., without any inconvenience or loss of significancy; and when ungrammatic people omit the affix, or employ what is called the present instead of the imperfect, their meaning is perfectly intelligible. The truth is, we are very apt to fancy that useless things are necessary, merely because we have been used to them; and we have not the smallest doubt that, if the affix in question had never been adopted, our language would have been as significant without, as it now is with, this termination. But if it were regularly affixed, there would be no objection to its existence: the great grammatic evils we have to complain of, are those irregularities which so much abound; and which serve only to render the verbal appparatus difficult and unwieldy.

If we discard all useless parts and irregularities, what are called the auxiliary verbs will appear in the following manner:

I do, thou do, he, she, or it do. We do, you do, they do. I doed, thou doed, he, &c., doed. We doed, you doed, they doed.

To do, doing, doed,

I have, thou have, he, &c., have. We have, you have, they have. I haved, thou haved, he, &c., haved. We haved, you haved, they haved.

To have, having, haved.

In consequence of *haved* being contracted into *had,* we have such extraordinary combinations as the following: I *have had,* I *had had;* and not only the former, but the latter of these expressions is set forth in proper grammatic order, as a necessary and regular tense.

Let and must require no notice in this place. Can and may merely express power: *I can go,* is equivalent to, I am able to go—I have power, permission, liberty, &c., to go. I may resign, is equivalent to, I have power to resign; and in spite of idle doctrines concerning potentials, the shorter is merely an abridged form of the longer expression. *May,* when the affix *ed* is assumed, is corrupted into *might* instead of *mayed.*

Will, Vol-o, is,

I will, thou will, he, &c., will. We will, you will, they will. I willed, corrupted into *would,* thou willed, he, &c., willed.

To will, willing, willed.

Shall,

I shall, thou shall, he, &c., shall; we shall, &c.: I shalled, corrupted into *should,* &c.

Shall seems most entitled to the designation auxiliary verb, for it does not appear to have much distinct significancy of its own; but it is, we believe, merely a diversity of *will;* and considering the perplexity caused by it, not only to Scotchmen and foreigners, but even to the English themselves, who often blunder in applying *shall* and *will,* its existence is no grammatic cause of congratulation.

The preceding verbs have some irregularities; but they are simplicity itself when compared with the verb be; in which there is more of wanton anomaly than could well be found within the same compass, if we were to search all the languages of the world. The remark of Mr. Turner applies equally to the English substantive verb: 'The Anglo Saxon substantive verb is compounded of several verbs. We can trace no fewer than five in its different inflections.' Words much in use are most liable to be corrupted and rendered irregular. Our ancestors adopted many irregularities, of what is called the substantive verb, from their literary neighbours: but confusion is worse confounded by their unskilful agency.

Am is plainly *ειμι,* Gr.; *sum,* Lat.: *is,* a corruption of *esti,* est; *was* is a corruption of *esse;* *were* is *fuere, furent,* Fr.; *furono,* It.; *art* and *are* seem corrupted from ‡ *weorth,* to be, be made: thus far we have a jumble of anomaly; but in what remains we have an entirely different word, and one which might be very easily rendered a competent substantive verb, at once simple and regular.

Be, ‡ beo and ‡ bio, i. e. fio, i. e. *bioo.*

The illiterate, particularly the peasantry, for they always adhere more closely to analogy than their grammatic superiors, have this as the sole substantive verb in the following manner:

To be, being, beed.

I be, thou be, he, &c., be; we be, you be, they be: I beed, thou beed, he, &c., beed; we beed, you beed, they beed.

Thus, by merely removing those nuisances, *est, eth, es,* or *s;* and by making the regular affix *ed* supersede the obsolete affix *en;* we have such simplicity and regularity, that even a child could not err in employing this familiar, household word. Fortunately *be* remains unchanged in what are called the future tense, and the subjunctive and potential moods: as, I shall *be,* thou shalt *be,* he shall *be,* &c. If I *be,* if thou *be,* &c. I may *be,* he may *be,* &c.

Having reviewed the grammatic auxiliaries, we may now approach the main body of verbs, which consist of very irregular forces: and, for the conceit of the allusion, we will make train our fugleman.

To train, training, trained.

I train, thou train, he train, we train, &c.: I trained, thou trained, he trained, &c.

This is such simple manœuvring that a child might go through the whole exercise; yet it is all that is either necessary or useful: and to change train from an active to what is called a passive state, all that is necessary is, *be* put before it, as accompanied with the affix *ed.* Thus,

I be loved, thou be loved, &c.

I beed loved, &c.

To be loved, being loved: having been loved.

We have no doubt that if *ed* had never been adopted as a verbal affix, the business could have been well accomplished without it; but, having been adopted, it may remain; only irregularities deserve to be banished.

When the auxiliaries are united with the re-

gular verbs, the junction is effected in the following manner:

I do train, thou do train, he do train, &c.: I doed train, thou doed train, he doed train, &c.
I have trained, &c.: I haved trained, &c.
I will train, thou will train, he will train, &c.
I shall train, &c.
I shall have trained, thou shall have trained, he shall or will have trained.

But, if the moods be abandoned, the tenses yet remain.

The truth is, as before intimated, if any notion as to time ever exist in connexion with any verb, it is wholly accessory or associated, and not signified by the verb itself. In general what is called the *present* tense simply indicates action, being, relation, &c.: what are called the *past* tenses, generally indicate existence, action, relation, &c., as terminated; which, of course, is closely associated in the mind with the notion of the *past*. What is called future tense properly indicates volition. Thus, if I say, I will publish the present work in the month of May: the sentence is equivalent to, I intend to publish in the month of May; or, I am resolved to publish in the month of May. Here the notion of *future* is manifestly an associated, not the primary notion. It is true that the word is applied to many objects in which volition does not exist; as in the following expressions: The moon will rise at eight to-night; the sun will rise at six to morrow morning. These are instances of a very numerous class of expressions which are metaphoric or allusive, rather than strictly and literally proper, though, from having been long used, they appear quite literal.

If the grammatic doctrine of tenses were admitted, what is gained by it? Does it impart any instruction? Does it render Tyro better acquainted with language or more master of composition? If it does not answer such a purpose, it is evidently worse than useless.

Irregular verbs, like all anomalies, are exceedingly troublesome, especially to learners. Most of them, evidently, originated in blundering carelessness; or in that aversion to polysyllables which operated so powerfully on our Saxon ancestors. Had grammar-makers endeavoured to remove such irregularities, they would have done some good; but, instead of such useful service, their first labor was to consecrate and confirm all the perversions which they found actually existing; and thus they prevented our language from *righting* itself, as it would have done, to a considerable degree, if it had been left wholly to analogy, free from the fetters of arbitrary rules established on anomalous precedents; for there is a constant effort on the part of children and foreigners, and all the ungrammatic, to restore uniformity; which effort is so well backed by reason, that it would doubtless prevail but for the despotic authority of written grammar.

With the view of inducing influential writers and speakers to set the example of banishing irregularities from the verbs, we will present them in the following distributions:—

First, Verbs that have both a regular and irregular form.

Awake	awaked		
	† awoke	† awaken	
Bend	bended	† bent	
Bereave	bereaved	† bereft	
Build	builded	† built	
Catch	catched	† caught	
Chide	chided	† chid	† chidden
Cleave	cleaved	† clave	
Clothe	clothed	† clad	
Crow	crowed	† crew	
Dare	dared	† durst	
Deal	dealed	† dealt	
Dig	digged	† dug	
Dwell	dwelled	† dwelt	
Freeze	freezed	† froze	† frozen
Gild	gilded	† gilt	
Grave	graved	† graven	
Gird	girded	† girt	
Hew	hewed	† hewn	
Knit	knitted	† knit	
Load	loaded	† laden	
Mow	mowed	† mown	
Saw	sawed	† sawn	
Shape	shaped	† shapen	
Shave	shaved	† shaven	
Shear	sheared	† shorn	
Shine	shined	† shone	
Show	showed	† shown	
Shrink	shrinked	† shrunk	
Slay	slayed	† slew	† slain
Sow	sowed		† sown
Spill	spilled	† spilt	
Strive	strived	† strove	† striven
Strow	strowed	† strown	
† Strew	† strewed		
Swell	swelled	† swollen	
Thrive	thrived	† throve	† thriven
Wax	waxed	† waxen	
Work	worked	† wrought	
Wring	wringed	† wrung	

There can be no unwillingness, even in the most dutiful disciples of custom, to discard all the above forms with the dagger prefixed; for most of them have an olden uncouthness, except to the lovers of antique obsoleteness.

Secondly, verbs that might be restored to analogy, or rendered regular without offering much violence to established usage: as,

Beseech	beseeched	†besought		
Bleed	bleeded	†bled		
Blood	blooded is still better			
Blow	blowed	†blew	†blown	
Choose	choosed	†chose	†chosen	
Cleave	cleaved	†cleft	†clove	†cloven
to split.				
Cling	clinged	†clung		
Creep	creeped	†crept		
Draw	drawed	†drew	†drawn	
Drive	drived	†drove	†driven	
Drink	drinked	†drank	†drunk	
Feel	feeled	†felt		
Flee	fleed	†fled		
Fly	flyed	†flew	flown	
One of these duplicates had better be discarded				
Fling	flinged	†flung		
Forsake	forsaked	†forsook	†forsaken	
Grow	growed	†grew	†grown	
Hang	hanged	†hung		

Hear	heared	†heard		
Keep	keeped	†kept		
Know	knowed	†knew	†known	
Lay	layed	†laid		
Lie	lied	†lay	†lain	
Leave	leaved	†left		
Lose	losed	†lost		
Pay	payed	†paid		
Ring	ringed	†rang	†rung	
Rise	rised	†rose	†risen	
Say	sayed	†said		
See	seed	†saw	†seen	
Shake	shaked	†shook	†shaken	
Shoe	shoed	†shod		
Sing	singed	†sang	†sung	
Sink	sinked	†sunk		
Sleep	sleeped	†slept		
Slide	slided	†slid	†slidden	
Sling	slinged	†slung		
Slink	slinked	†slunk		
Smite	smited	†smote	†smitten	
Speak	speaked	†spoke	†spoken	
Speed	speeded	†sped		
Spend	spended	†spent		
Spin	spinned	†span	†spun	
Spit	spitted	†spat	†spitten	
Spring	springed	†sprang	†sprung	
Steal	stealed	†stole	†stolen	
Stick	sticked	†stuck		
Sting	stinged	†stung		
Stink	stinked	†stank	†stunk	
Stride	strided	†strode	†strid	†stridden
Strike	striked	†struck	†stricken	
String	stringed	†strung		
Swear	sweared	†sware	†swore	†sworn
Swim	swimmed	†swam	†swum	
Swing	swinged	†swung		
Teach	teached	†taught		
Tear	teared	†tore	†torn	
Tell	telled	†told		
Think	thinked	†thought		
Throw	throwed	†threw	†thrown	
Weave	weaved	†wove	†woven	
Weep	weeped	†wept		
Win	winned	†won		

Most of these are already familiar to us, as being constantly heard among the ungrammatic members of society, who are the great majority of the whole population; and, when our mouths and ears have somewhat practised on these analogies, they will not shy much at such strange regularities as the following:—

Abide	abided	†abode			
Be	beed	†been			
†Am	†was				
Bear	beared	†bare	†bore	†borne	†born
Begin	beginned	†began	†begun		
Bid	bidded	†bade	†bad	†bidden	†bid
Bind	binded	†bound			
Bite	bited	†bit	†bitten		
Break	breaked	†broke	†broken		
Breed	breeded	†bred			
Bring	bringed	†brought			
Buy	buyed	†bought			
Come	comed	†came			
Do	doed	†did	†done		
Fall	falled	†fell	†fallen		
Feed	feeded	†fed			
Fight	fighted	†fought			
Find	finded	†found			
Give	gived	†gave	†given		
Go	goed	†went	†gone		
Have	haved	†had			
Hide	hided	†hid	†hidden		
Hold	holded	†held	†holden		
Lead	leaded	†led			
Make	maked	†made			
Meet	meeted	†met			
Rend	rended	†rent			
Ride	rided	†rode	†rid		
Run	runned	†ran	†run		
Seek	seeked	†sought			
Send	sended	†sent			
Shoot	shooted	†shot			
Sit	sitted	†sat	†sitten		
Stand	standed	†stood			
Take	taked	†took	†taken		
Tread	treaded	†trod	†trodden		
Wind	winded	†wound			
Write	writed	†wrote	†written		

The following have no change of termination; yet, as already noticed, they answer every purpose of speech as well as those that have the affix *ed*: having a great affection for simplicity we are rather partial to such unchanged verbs; but as *ed* has been adopted, and has become the general rule, perhaps it ought to be uniformly affixed: thus, beat, beated; burst, bursted; cast, casted; cost, costed; cut, cutted; eat, eated, teaten; hit, hitted; let, letted; put, putted; read, readed; rid, ridded; set, setted; shed, sheded; shred, shreded; shut, shutted; split, splitted; spread, spreaded; sweat, sweated; thrust, thrusted.

Observe, 1. That most of the irregular verbs have descended from Saxon times; when there was a different manner of forming what is called the imperfect besides affixing *ed*.

2. The termination *en*, which appears so often in what is called the perfect passive participle, is a relic of a regular affix, now obsolete; and, for the same reason that it has been wholly discontinued in what is called the infinitive mood (for we never say or write to loven, &c.), it ought to be entirely disused, except as an immoveable affix; as, *flaxen*, *golden*, *flatten*, *blacken*, &c.

Many of the irregularities, exhibited above, are merely contractions or corruptions of the verbs with the regular affix: as, bereft contraction of bereaved; clad of clothed; dealt of dealed; dwelt of dwelled; gilt of gilded; spilt of spilled; cleft of cleaved; crept of creeped; felt of feeled; fled of fleed; kept of keeped; left of leaved; shod of shoed; slept of sleeped; wept of weeped; &c.

There is still a great tendency to such contractions as, *smelt* for *smelled*; *learnt* for *learned*, &c.; but the grammarians have very properly remonstrated against such instances; and, for the same reason, the author remonstrates against all irregularities, whether more or less modern. Instead of indulging foolish mirth or contemptuous ridicule, when children, foreigners, and illiterate natives follow the guidance of analogy and say, *growed*, *knowed*, *blowed*, *seed*, &c.; men ought to be ashamed of their own want of re-

flection—their appreciation of worthless distinctions—their blind reverence for anomalies, made up of blunders and corruptions—and their slavish submission to the tyranny of an arbitrary kind of grammar, which attempts to prove its legitimacy by giving reasons for what reason never dictated.

PART III.

PREFIXES AND AFFIXES.

Prefixes are those words which are joined on the left or at the beginning of other words: as, *un*known, *re*visit, &c.: affixes or postfixes are those words which are joined on the right or at the end of other words: as, heed*less*, mind*ful*, &c. It is evidently of some importance that these should be explained; especially such of them as have no separate existence in the English language. Such words are generally particles; i. e. small parts of compound words: and some of them are fragments of sentences. Post, after, (for example), is evidently what is called p. p. of pono, (hence pone, behind), and must have been originally connected with other words to express the meaning now indicated by it alone, in some such manner as the following: positum a tergo, &c.

It is only on this supposition that the actual meaning of many words can be accounted for.

SECT. I.—OF PREFIXES.

This term is more definite than preposition; which last term was originally employed for the same purpose as we now employ the former; and in this view there are both meaning and sense; in any other view there is neither: hence, as already intimated, the unmeaning definition of preposition, as commonly given by the grammatists.

The prefixes may be presented in the following classes:—

1. GREEK.—*An* (both *an* and *un* in Gothic), *in*, and both in and un with us: as, *in*voluntary, *un*willing; i. e. not voluntary, not willing: so that the prefix *an*, *in*, *un*, has precisely the meaning of *ne*, *non* (i. e. *ne*, *ne*), not: it is a negative prefix.

The Greek grammarians have made the same mistake about the above prefix as the English grammarians, concerning what they call the indefinite article. Both say that *a* becomes *an* before a word beginning with a vowel; whereas, *an* becomes *a* before a word beginning with a consonant. Observe again, that one of our duplicates of this prefix, i. e. *un*, is derived directly from Greek, through our Gothic ancestors; the other from the Latin. Hence we prefix *un* to Saxon words (themselves corruptions of Greek and Latin); and *in*, the Latin corruption of *an*, to Latin words: as, involuntary, unwilling. We perceive something of impropriety, or uncouthness, i. e. a departure from established usage, if we interchange them: *inwilling*, *unvoluntary*; but the latter being more vernacular, or idiomatic, does better than the former. Of course, as a consistent advocate of simplicity and uniformity, the author would have one of these duplicates of the negative prefix discontinued; and that which was adopted from the Latin, as being less idiomatic, should be turned off; but to this there is certainly a great obstacle; for many words compounded of *in* have been received into our language; as infirm, infallible, &c.

In addition to all the other anomalies, there are many useless diversities of the same word, which have been adopted first directly from the Greek, then from Latin, Italian, French, &c. &c.: thus many forms of the same verb, noun, &c., have been imported from other languages; and then these have been yet more diversified by the caprices of spelling and pronunciation.

Ana or *an*, which is the same in German, and with us changed into *on*. This is a word of frequent occurrence; but it is not much used as a prefix.

An is changed into *en*, changed into *in*; which we have both as a prefix and a preposition. Of this, also, we have a duplicate, which we borrowed from the French; as, inquire, enquire; indite, endite; &c. It would certainly be advisable to discard the French and adhere uniformly to the Latin form of spelling; as, inchant, †enchant; indict, †endict; ingrave, †engrave, &c.

There can hardly be any reasonable doubt that *ana*, *an*, *en* (with us *on*, in), and *an*, *a* (*in*, with us *un* and *in* negative), are but one and the same word, or fragment of a word; and that the difference of meaning is owing to ellipsis, i. e. difference of composition.

Anti, in front of, directed to, opposed to: it has only the last meaning when a prefix with us: as, *antireformer*, i. e. one who is opposed to reform; *antiabolitionist*, one who is opposed to the abolition of negro-slavery. *Ante* (i. e. *anti*) is equivalent to, in the front, ahead of, before: *antediluvian*, i. e. before the diluvium, corrupted into deluge; *antemeridian*, i. e. before the sun be at the meridian—before noon. From *ante* is *avante* (It.), (i. e. *a-ante*) contracted into *van*.

Apo, *ab*, contracted into a, and Ger. ‡ aff, ‡ af, off, of. Both off and of are frequently used; but only the former is employed as an affix, and that but seldom.

Ek, *ex*, *ex*, contracted into *e*; corrupted into ‡ uss, ‡ ust, *aus*, Ger., out. Out is not much used as a prefix: *ex* is much employed as a prefix in Greek and Latin, and *aus* in Ger. The general meaning is the same in all the different languages; i. e. it is compounded of that of the prefix, and of that of the other word. *Exlex* and *outlaw* both mean out of, or without law; only the first is a person that is not subject to law; the second is a person that has not the protection of law.

On *ex* is formed *extra*, i. e. out of, beyond: *extraordinary*, beyond ordinary; *extraparochial*, not comprehended within any parish.

Hemi, *semi*, i. e. half: as, *hemisphere*, i. e. a half sphere; *semicircle*, a half circle, or the half of a circle. *Hemi* is a contraction of *hemisa*, a contraction of *he messe;* i. e. the feminine article, and *messe*, *media*, medium, middle.

Para, *peri*, *per*, &c., *per*. This, like so many other particles, or verbal fragments much in use, is exceedingly vague. As a Greek prefix, it occurs in but few words adopted into the English language. As a Latin prefix: *per* means through, completely, much: as, perfect, completely done, finished, complete; perform, to form completely;

to finish, &c. When not employed as a prefix, *per* is equivalent to by: as, *per centum*—by the hundred.

Pro, pro, præ, corrupted into for, fore. *Præ, pre*, and fore, as prefixes, are exactly equivalent: as, preordain, foreordain; predict, foretell, &c. *Pro* is generally equivalent to forward, i. e. foreward, or forth: as, produce, i. e. to lead forward, or bring forth; propel, drive forward, &c. For is prefixed to very few words, and is equivalent to *pro* in some of its connexions and applications.

Huper, or *hyper, super, supra*, corrupted into *up, upper*, uber, and oben Ger. ‡ *aber, ober*, Heb. over, ‡ bove, boven Dut., i. e. be over, whence above. It is not meant that *ober*, Heb., ‡ *aber*, &c., are derived from *huper*, as *super*, &c.; but they are all manifestly the same word with the same meaning. Hypercritical, i. e. over critical; supernatural, above natural, or above the course of nature; supervisor, overseer, &c. *Super* is contracted into *sur* by the French: surcharge, surfeit, survey, &c.; i. e. overcharge, overdo, overlook, or view all over, &c.

Aber, in the names of towns, means over, like *sur*, upon, &c.: as, Aberdeen, i. e. over or upon the Don; Abergavenny, i. e. over the Gavenny; Aberistwyth, i. e. over the Istwyth, &c.

Inver, i. e. *infra*, is just the opposite of *aber*: as, Inverness, i. e. under the Ness; Inverury, i. e. under the Ury, &c. Thus we have Newcastle-under-Line as well as Newcastle-upon-Tyne, &c.

Hupo, or *hypo*, changed into *sub*, whence *subter*; all which are prefixes: we have few Greek words with the prefix *hypo*; but we have many Latin words with *sub*, &c.: as, subscribe, i. e. underwrite, or write under; sub-tenant, i. e. under-tenant, &c.

Dia, dis, de, through, from, out, apart. The primary use of both dis and de may be termed separative: as, diffuse, to pour out, or asunder; depart, to part from, leave, go off: in many words they rather add to the force than to the meaning of words: demonstrate, to show forth (monstro, to show); despoil, to spoil, &c. In many words they are simply negative: discredit, not to credit, &c. In some words *de* has the signification of down or downwards: as, descend, go down; degrade, make to descend to a lower grade, step, or station; despise, literally, look down upon.

Dis, de, like *ex, e, ab, se*, are directly opposite to *ad, con, ob, in*. The last may be termed connectives: the first disconnectives. As negatives, *dis, de, un*, are exactly equivalent: discover, uncover (the first is now used only metaphorically); dethrone, unthrone; demoralise, to render immoral, &c.

Malus, mal, ill, bad, contracted into *mes, me*, Fr., *mis*: malecontent, mal-content, Fr.; malformation; misuse, misadventure, &c. Mésuser, mésaventure, Fr., i. e. not well content, bad formation, to use ill, a bad adventure: thus, miscalculate, misadvise, mistake, &c.

The following are Latin prefixes or prepositions: *ad*, corrupted into *adu*, ‡ *du*, now *to*, and into *at*; and contracted into *a* in It. Fr. Sp. and Eng.: as, abed, asleep, ashore, aground, &c.; i. e. in bed, in sleep, on shore, on ground, &c. In all such expressions as, to go a begging, a fishing, a hunting, &c., *a* is *ad* contracted; and the meaning is, to go to begging, to fishing, &c. *Ad* and its contraction *a*, and its diversified forms *at, to*, have precisely the same meaning.

The last consonant of the prefix is usually changed into the first consonant of the word with which it is joined; as, adnuncio, annuncio, to announce; assulto, to assault, i. e. leap upon, to attack.

The illiterate classes of the English, particularly cockneys, are guilty of using *a*, i. e. *ad*, most unreasonably: as, I was a saying, he was a hearing, he is a going.

Circum, in a circle, round, about.

Circumnavigate, to navigate round, or sail round; circumambulate, to amble, or walk round, &c.

Inter, i. e. *in* and *ter* an adjective affix, within, between, among; interline, to write between lines; interlope, to leap between, or among; interregnum, interreign, the time between the reign of one king and that of another.

Intro, in or into: introduce (duco, lead), to lead, or bring in, &c.

Intra, within.

Internus, Internalis, internal.

Interior.

Introeo, corrupted, through the Fr., into enter, whence entry, entrance, &c.

Con, with, to: *Concurro*, concur, run together, unite; confront, to place front to front; confluent, flowing together; commingle, to mingle together.

Contra, corrupted into counter; facing, opposite, against: contradict (dico, speak), to speak against, or deny; counteract, to act in opposition to; countermand, to order the contrary of what was ordered before, &c.

Contrarius, contrary; contrarietas, contrariety.

Ob (epi), upon, to, before, for, &c.: *obligo, oblige* (*Ligo*, bind), bind to; *occur* (curro), run to, meet, happen.

Trans, contracted into *tra* (It.), and corrupted into *through* (and *très*, Fr.), *thorough* (*durch*, Ger.): it answers to *through, over, beyond*: transgress, trespass, to *pass over*; *transatlantic*, beyond the Atlantic; translucid, shining through, clear. *Très* is employed by the French as we employ *very, exceedingly*.

Ultra (corrupted into *outre*, Fr.), beyond, above, high, &c.; ultra-royalist, one who has very high notions of royalty, a high tory.

Ulterior, further.

Sine, without, (i. e. *sit ne*, be not), contracted into *se*, is strictly a separative or disconnective; segregate, to separate from the flock; seligo, selectum, *select*, to choose out of. This prefix has much the same use as *de, dis, di*, and *un, in*.

Re, again, back: re-enact, enact again; re-state, state again; rebound, bound back.

In Dutch re is corrupted into *her*; as, *herplant*, replant; *hermaak*, remake.

It is unnecessary to explain those words sometimes employed as prefixes, which have a separate existence in the language: such as, with, down, &c. There is but one Anglo prefix

that appears to require notice, viz. *be*: as in befriend, bespeak, belie, &c. This prefix is possibly the verb be; but we rather think it is the preposition *by* (*bey* Ger.), i. e. *abu*, Goth., i. e. *ab*.

In some cases this prefix gives a particular meaning to a verb: as, belie, bespew, &c. Some nouns are formed into verbs, in connexion with it, which do not exist as verbs in a simple or separate state—as, befriend, behead, &c.; but frequently it imparts no meaning: thus, becalm, to calm; becloud, to cloud, &c.

Arch, i. e. *arch-os*, chief, is employed as a prefix: arch-priest, a chief-priest; archbishop, a chief bishop; arch-rogue, a chief or great rogue, &c.; arch-heretic, a chief or remarkable heretic.

Sect. II.—Of Affixes or Postfixes, i. e. words added to the end of other words.

Affixes of *adjectives* may be arranged under the following heads:—

1. Simple adjectives or connectives: an, en, in, on, &c.; ad, ed, id, &c.; ate, ite, &c.; al, el, ile, &c.; ar, *er*, *ary*, &c.; ic, ick, ig, contracted into y and corrupted into ish (*isch*, Ger.; *esco*, It.; *esque*, Fr.): hum*an* from humo, now homo; gold*en*, frig*id*, part*ial*, singul*ar*, custom*ary*, domest*ic*, ‡ frost*ig*, now frosty, Span*ish*, Wasp*ish*, picture*sque*.

All these affixes, which the modern have in common with the learned languages, might, as already intimated, be called possessive or genitive: thus, conditio hominis, humana conditio, man's condition, the condition of man, the human condition, are all equivalent expressions.

Observe, such affixes are frequently redundant, i. e. two or more are put where one is sufficient: as philosophi*cal*; etymologi*cal*; east*ern*; west*ern*, &c. &c., instead of philosophic, &c.

Concerning the etymology of these affixes, it is, perhaps, idle to offer a conjecture, as they are mere fragments of words; *id*, &c., seems a contraction of eidos (used adjectively), *ic* or *ik*, &c., of eikos, *like* (which word is also employed as an adjective affix); and, perhaps, all the rest have a similar derivation; but we cannot be confident respecting them.

2. Separative or negative affixes of adjectives. We have one of this description, which answers exactly to the negative prefix *in* or *un*, viz. *less*, i. e. ‡ los, i. e. *lost*, deprived of, without: as, wit*less*, friendless, careless; without wit, without a friend, without care: the Ger. is *los*: as gott*los*, godless; grund*los*, groundless. Our present form of this affix seems to have originated (like many other modern spellings) in etymologic error; by supposing it to be the adjective *less*, or comparative of little.

3. Diminutive affixes of adjectives. We have one of this description, viz. *ish*: as, sweet*ish*, a little sweet: saltish, a little salt: *ish*, is a corruption of the Greek diminutive *isk*; which is in Italian, *uccio* and *uzzo*, and in Span. *ico*.

4. Augmentive adjective affixes: these are ‡ sam, ‡ sum, *some*, *ful*, *ous*.

‡ Sam, ‡ sum, now *some*, is the Latin superlative affix, *ssim*-us or *sum*-us, i. e. *summ*-us, highest, greatest, most, much, very: trouble*some*, light*some*, causing much trouble, giving much light. In Ger. this affix is *sam*; our present spelling originated in the etymologic error of supposing it to be *some*; which still exists as a separate word, but which has an opposite meaning.

Ful, i. e. full, requires no explanation here. *Ous*, is the French form of *os* (like *our* for *or*), a Latin augmentive affix: calamitos-us, *calamitous*, having or causing much calamity.

These three affixes are equivalent though not always interchangeable; for it is not customary to put the one for the other at choice. We say *troublesome*; but *troubleful*, *troublous*, seem awkward. The old writers, indeed, took more liberty in this way.

The Latin affix *os*, is manifestly the same as *ox*, *ax*, and seems to be a fragment of maxim-us, greatest, most, much, very.

There are some adjective affixes that cannot be ranged under any of the above designations: as *able* (i. e. habilis, habile—see habeo), which might be termed potential passive: teach*able*, moveable, mutable, mutabile, &c.; i. e. that may be taught, that may be moved. But there are instances in which it is employed as active rather than passive: forcible, conversable, &c., i. e. forceful, that can converse. This use of the affix is not frequent; and, perhaps, it ought to be discontinued.

It is almost unnecessary to mention that our adjective *able* is the same word; only it is hardly ever applied as passive: we say, able to see, but not able to be seen.

Alike, like, often contracted into *ly* (*lich*, Ger. and gleich, i. e. ge-leich, lyk, Dut.), i. e. aligki-os, perhaps a corruption of eikel-os, æqual-is, equal: gentlemanlike or gentlemanly, friendlike, or friendly, &c.; i. e. like a gentleman, as a friend: this is generally what is termed an adverbial termination: as, *boldly*, in a bold manner, proudly, in a proud manner, &c.

Horne Tooke derives *like* from the compound *gelyk* or *gleich*; but he does not attempt to inform us what *gleich* is derived from.

We may notice the affixes *ward* and *wise* here: as in *homeward*, *backward*, *sidewise*, *longwise*, &c., in the direction of home, in the direction of the back, in the direction of the side, in the long direction or manner: *ward* is a corruption of versus. See ward under vert-o; *wise* is for ‡ *wayis*, ‡ *way's*, genitive of way, i. e. via.

Affixes of nouns are, *head* also *hood*, *dom*, *ship*, *ness*, *th*, *ty*, *tude*, *ary*, *ry*, *ment*, *men*, *mony*, *age*, *ation*, *etion*, *ition*, *otion*, *ution* and *asion*, *esion*, &c., *ant*, *ent*, *or*, *er*, *ist*, *ism*, *ling*, *lin*.

As the terminations of words are exceedingly liable to be corrupted, it is hardly possible to arrive at a satisfactory opinion concerning the derivation of many affixes: those of the nouns are particularly difficult.

The affix *head*, *hood* (*heid*, Dut., *heit*, Ger.), would seem at first sight the noun head: as if ‡ manhead or manhood were head man or great man; but there is so little obvious connexion between the meaning suggested by this word,

whether taken literally or figuratively, and the use of hood as an affix in many applications, that we have conjectured the last to be either a corruption of had, or, what seems more probable, of tudo. Another form of the same affix in German is od, and in Welsh there is edd and dod. But, whatever be the derivation of hood, it means exactly the same as tudo, ty, &c., i. e. state, condition: widowhood is being a widow; falsehood is being false, or that which is false.

Dom (thum, Ger.) seems evidently a contraction of *domain* or *dominion*: kingdom, popedom, princedom, dukedom, that which is subject to a king, &c. In such instances the affix is strictly proper; but, like other words, it was extended to more vague applications: as wisdom, freedom, &c., i. e. being wise, free; or the state of being wise, free.

Ship, schaft, Ger., has also occasioned much trouble. We have conjectured it might, as also *haft*, Ger., be a corruption of ‡ hafd, *haupt*, Ger., i. e. caput; then we have supposed it might be *have*; again, we have thought it might be a corruption of *super*; which, so far as meaning is concerned, is the most likely derivation. But, whatever be the derivation, it evidently serves the same purpose as *hood*, *dom*, *tas*, *ty*, *tude*, &c.: as lordship, the domain of a lord, the power, authority, dignity, &c., of a lord; worship, ‡ worthship, i. e. being worthy, or considered worthy, of honor; whence, as a verb to worship, i. e. to honor; worshipful, honorable, or considered full of worth, very worthy; courtship is the business, state, or process of courting.

The preceding affixes are not much employed, and may be regarded as antique terminations; for they are hardly affixed at pleasure in the present time.

The affix of most general application is *ness*, *niss*, Ger.; which, as well as *ezza*, It., and *esse*, Fr., seems a corruption of essentia, essence. Almost any adjective can be converted into a noun by this affix: round, roundness, ritondo, ritondezza, It.; feeble, feebleness, foible, foiblesse, Fr.; noble, nobleness, noblesse, Fr. So also in Ger. finster, dark, finsterniss, darkness.

Horne Tooke seems to have fancied that the above termination was the same as ness in the names of places on the sea coast: as Sheerness, Foulness, &c.; but the latter is manifestly nose or nasus; and it would be difficult to discover any connexion between nose and the affix in question.

The affix *th* in connexion with nouns is considered by Mr. Tooke the same as the verbal affix *eth*: we have by turns supposed it might be that, or, perhaps, *the*, what is called definite article, or a corruption of *ty*. The last is rather our present opinion. But whatever be its derivation, its use is the very same as ty, ness, &c.: as, wide, width, wideness; long, ‡ length, length, longness; true, truth, the same as verity, i. e. veritas from verus.

The affix *ty*, like *té*, Fr., *ta*, It., *dad*, Sp., is a corruption of the Latin affix *tas*, *tat*, and Greek *tes*; as bounty, bonté, Fr., bonta, It., bondad, Sp., bonitas from bonus, good; vanity, vanité, Fr., vanita, It., vanidad, Sp., vanitas from vanus, vain.

There is the same use of *tude*, i. e. *tudo*, Lat. and in the ablative *tudine*; which is adopted by the Italian: magnitude, magnitudine, It., magnitudo, from magnus, great.

The termination *ary*, contracted into *ry*, is properly the Latin adjective affix *aris* or *arius*: as actuary, apothecary, &c., i. e. actuarius, from actus; so cavalry, formed on † cavallus, caballus, a horse, a war-horse; rivalry, formed on rival; pleasantry, on pleasant, &c.

The terminations *ment*, *men*, *mony*, are evidently the same affix: fragment-um, a broken part, from ‡ frag-o, to break; document-um, that which shows, from doc-eo, to show; commandment what is commanded, from command; acumen, sharpness, or that which has a point, from acu-o, to point, make sharp; patrimonium, patrimony, what descends from a father (pater), an inheritance, &c.

This affix is frequently an adverbial termination in Italian, French, and Spanish; importunamente, It. and Sp., importunement, Fr., importunately, &c.

The termination *age*, seems in some instances the augmentive *accio*, It., i. e. *ax*, Lat.; as villagio, It., village, the augmentive form of villa; viaggio, It., voyage of via, a way, a journey; personaggio, It., personage of persona, person; foliage, feuillage, Fr., of feuille, Fr., or foglia, It., folium, a leaf.

In the modern Italian, accio has become a contemptuous augmentive; but, as it remains in the form of aggio, it is either neutrologistic or eulogistic.

In such instances as the following *age* is simply a connective or possessive affix; and seems to be a corruption of *ac*, *ic*, *ag*, or *ig*, already noticed, under simple adjectives: personage, vicarage, poundage, tonnage, &c. In all such cases, *age*, as explained under simple connective affixes, merely means of, connected with, belonging to: parsonage house is the house of a parson; parsonage benefice is the benefice of a parson; poundage custom, charge, rate, &c., is equivalent to per pound; patronage is the power or agency of a patron.

A numerous class of verbal nouns, derived from the Latin, terminate in *ation*, *acion*, *asion*, *etion*, *esion*, *ition*, *icion*, *ision*, *otion*, *osion*, *ution*, *usion*. In Italian these terminations are *atione*, *acione*, &c., being the form of what is called the ablative singular of the Latin. When the modern Latin, i. e. the Italian, discontinued the ancient cases, it retained this as the only singular termination, for no other reason, perhaps, than its agreeable sound. With us, the French, and the Spaniards, the final *e* is dropped: thus, commend, commendation, commendazione, It.; complete, completion; compose, composition, composicion, Sp., composizione, It.; confuse, confusion, confusione, It.

With few exceptions, the French and the English are the same: the Italian differs from them in having the final *e* and *z*, instead of *t*: Spanish has generally *c* instead of *t*.

The last-mentioned nouns are formed on what is called the supine. Thus, factum, to make or do; factio, ablative factione, a making or doing; occasum, to fall or happen, occasio, ablative

occasione, a happening; intrusum, to intrude, intrusio, ablative intrusione, an intruding or intrusion.

It is evident that all such words are of the same nature as our verbal nouns, terminating in *ing*, i. e. participles put substantively; auditio is the same as hearing; visio, visione, vision, seeing. There can in general be no necessity, therefore, for explanation to such words, when the verbs have been explained from which they are derived.

As these verbal nouns follow the spelling of the supine or participle, they occasion some orthographic embarrassment to mere English scholars; for whose sake it would have been well, perhaps, if one consonant had been adhered to in naturalising such words. There is no difficulty with those verbs and adjectives which we have from the Latin supine or participle: as, communicate, communication; promote, promotion; profuse, profusion; pollute, pollution; contrite, contrition; profess, profession. Of those verbs which have *d*, the nouns have *s*: deride, derision; protrude, protrusion: but those which assume another syllable terminate in *ation*; as commend, commendation, from commendatum.

Nouns terminating in *ant* and *ent* are Latin participles: as, servant from servo; patent, from pateo, &c. In these, and in nouns generally adopted entire from the Latin, we, as well as our neighbours, have what is in that language called the ablative case.

The termination *or* changed into *er*, *ar*, and in French *eur*, is generally applied to indicate an agent: *Creator*, he who creates; *lover*, one that loves; *liar*, one that lies; *beggar*, one that begs; amator, *amateur*, Fr. a lover. In Latin, *or*, like *os*, is merely a masculine sign or affix: as *amor*, love, as well as *amator*, lover, *honor* or *honos*. The French have changed *or* into *eur*, when an agent is indicated, and into *our* when agency, state, quality, &c., are indicated; and Johnson has followed in this, as in several other instances, the French mode of spelling; as, labour, honour, favour, instead of labor, honor, favor.

The termination *ist*, adopted from Greek, answers exactly to *er*, i. e. *or*, from the Latin: as, reform*er* or reform*ist*; etymolog*er* or etymolog*ist*; One of these seems more fit and graceful in some connexions than the other: *er*, having been longer and more generally used, does better in connexion with vernacular words: reformer is better than reformist; but *etymologist* seems better than *etymologer*; *geographer* again seems more graceful than *geographist*. Much in all such cases depends on custom; which has mighty sway over our mental and moral habitudes.

The adjective affix *an*, or *ian*, is employed in connexion with many nouns ending in *ic*, to form a new noun indicating an agent: as, from music, musician; logic, logician; optics, optician; metaphysics, metaphysician.

The Latin termination *ura*, in French and English *ure*, frequently occurs: as creature from create; picture from pictum, pingo to paint.

The Latin termination *tia* is changed into *ice*, *ce*, *cy*: as mal-us, malitia, *malice*; frequens, frequent, frequentia, *frequency*; prævalentia, *prevalence*.

The Greek termination *ism*, is frequently appended to words which are not of Greek extraction: as, Calvinism, the doctrinal system of Calvin; Gallicism, a Gallic or French idiom; *vulgarism*, a vulgar expression; *truism*, an obvious or a trite, *true* remark.

Many verbal nouns (nouns formed from verbs) terminate in *ence*, i. e. *entia*, Lat.; as, *providence*, contracted into *prudence*, foreseeing, providing, taking care of; *credence*, believing; *precedence*, preceding, &c. All such words answer exactly to our own participles employed as nouns; as, hearing, seeing, smelling.

We have noticed *age* as properly an augmentive in such words as *village*, *personage*, &c.: *on* (*one*, It.), *oon*, is also an augmentive: as, *matron*, *patron*, matrona, patronus; formed on mater, pater; saloon, *salon*, Fr., *salone*, It., a great hall, from *sala*, It., *salle*, Fr., corruption of aula, a *hall*. This Latin affix, which is eulogistic as well as augmentive, seems to be a contraction of bonus: thus, pater-bonus; mater-bona.

We, like the French, have not any vernacular augmentive affix of nouns: such words as *village*, *salon*, &c., were borrowed in the compound state from the Italians.

Most of the diminutive affixes of nouns are now obsolete, though they yet remain as inseparable terminations in many words.

The Latin diminutive affix is *uncul* contracted into *cul*, *ull*, *ul*, *ell*, *el*, &c., and in Italian *ello*, in Spanish *uelo*, *illo*: as particula, *particle* (from pars, part-is), a small *part*; morsiuncula, contracted into morsel (from morsus, a bite), a little bite, a snap; bestiola, corrupted into *beetle*, a little beast or creature; sedicula, contracted into sedile (from sedes a seat), corrupted into *saddle*, *settle*, *stool*. Thus a great number of words terminating in *l* or *le* are properly diminutives: many of them have been adopted directly from the Latin; many have been received through the French or Italian.

The above affix, *uncul*, seems a contraction of uncialis, of an *inch*, of the magnitude of an *inch*; which is equivalent to small, little.

The Italian has two other diminutives, viz. *etto* (*ette*, Fr., *et*, Eng., *ito*, Sp.) and *ino*; which are found in many words: as pocket, diminutive of *poke*, *pouch*, *poche*, Fr.; ballot, *ballotte*, Fr., *pallotta*, It., of *ball*, *balle*, Fr., *palla*, It.; bullet, *boulet*, Fr., of *boule*, Fr., another form of *balle*: kitten, *gattino*, It., diminutive of cat, *gatto*, It., French.

The French formerly employed the diminutives at pleasure like the Italians and Spaniards, but they have long disused them; and this of course is a subject of boasting with Voltaire, in reply to the Italian critics who accused the French of having no diminutives. We had them formerly, says Voltaire; but they possessed not sufficient dignity for the noble language of the Bourdaloues and Massillons!!

It will, perhaps, flatter the French to remark that we probably discontinued the use of diminutives, because they set us the example.

Most of the diminutive terminations which we have traceable to the Italian, were derived through the French.

We have noticed *ish*, i. e. *uccio*, It., *ico*, Sp., *ık*, Greek, under adjective affixes . as, in sweetish, brackish, saltish, &c. We had it formerly *ock*, *uck* (as it still exists in Scotland ; as, *beastock*, contracted into *beasty*, a little beast), as in *hillock*, a little *hill*.

As *ish*, *ock*, *ico*, Sp., *uccio*, It., &c., seem to be *ısk*, Gr.; so, perhaps, *et*, *etto*, It., is the Greek adjective etton or hetton, a contraction of elatton also elasson; whence, seemingly, our ‡ *lyt*, *little* and *less*, as also *lad*, *lass*.

We have also as diminutive affixes *kin*, *chen*, Ger., and *lin*, *ling*, *lein*, Ger.; as, manikin *männchen* and *manlein*, Ger., little man; lambkin, *lammchen*, Ger., little lamb; goslin, *ganschen*, Ger., a little goose; lordling, contracted into lording, *lordchen*, Ger., a little or petty lord. Of all the diminutives of nouns, *ling* is the only one which is not quite obsolete; and even this is hardly applied ad libitum; and having become like the Italian *uccio*, *uzzo*, *ecciuolo*, exceedingly contemptuous, we cannot regret its departure.

Both *kin* or *chen* and *lin*, *ling*, or *lein*, are evidently contractions of *klein*, Ger., little.

Affixes of *verbs*.—Here, to avoid repetition, we do not intend to notice those terminations already treated of, such as *est*, *eth*, *es*, *s*, *ing*, *ed*, and the irregularities of what is called the substantive verb. The affixes now in view are those immoveable terminations which we have in many verbs, viz. *en*, *er*, *ize*, *fy*, *ish* : *en* is the obsolete sign of what is commonly called the infinitive mood, and is manifestly the same as the Greek *ein:* as philian, ‡ *loven*, to love; having been once connected with many verbs it was considered a fixture, and therefore remains, though it adds no meaning; as, slacken, to slack, blacken, to black, &c. Here, as in other instances, custom has the effect of making us fancy that *en* gives meaning or force or dignity; but if we had been more used to slack, black, &c., than to slacken, blacken, the case would have been reversed. However, as *en* causes no inconvenience, it may remain; especially as some words (after we have been so long used to it) would seem exceedingly awkward or unmeaning without it : as *enliven*, *brighten*, *frighten*.

The verbal termination *ize* is adopted from Greek: as, baptize, to immerse; a new verb formed on bapto, to dip or *bathe ;* liberalize, to render liberal; temporize, to suit the times (*tempora*): brutalize, to render brutal; demoralize, to render immoral; authorize, to give authority to, &c.

The verbal termination *er*, is (like *en* in Saxon and German, and *ein* in Greek) the French, Italian, Spanish and Latin affix of what is commonly called the infinitive mood : as, batuo, *beat*, batuere, corrupted into *battere*, It., *battre*, Fr., *batir*, Sp., *batter ;* sputo, to *spit*, spout, sputare, *sputter*, corrupted into spurt, spirt. We have many verbs formed upon nouns by assuming this affix: as, *pester*, from *pest ; flatter* (and Fr.), from flatus, &c.

Where we have duplicates of the same verb as *beat* (batu-o) and batter (batuere), the latter form is generally augmentive : batter, is to beat much or forcibly; sputter, is to spit much or forcibly.

The verbal termination *ish*, is a corruption of *is*, the first person present indicative of the same verbs in French : as, flourish, banish, garnish (corrupted into furnish), &c., in French, *fleuris*, *bannis*, *garnis*, &c. The *s* is now silent in French ; but it was not silent when such words were adopted into the English language ; and, as *oui* was anciently *ouis*, we have it corrupted into *yes*.

A verbal affix of very general use is *fy*, i. e. fio, or rather facio, to make : as, *rectify*, to make rect-um or *right ; beautify*, to make beautiful ; *brutify*, to make a brute, i. e. of a human being. In this, as in so many other cases, there is a less proper application of *fy*, which tends to produce equivocalness : as, *verify*, *justify*, &c., which do not mean to make *true*, to make *just ;* but to prove true, to prove just.

PART IV.

RATIONAL GRAMMAR OF THE ENGLISH LANGUAGE.

This is presented chiefly for the sake of contrast to arbitrary grammar ; and, after what has been already written, it is hardly necessary to show how widely different the one is from the other. It must be remarked, that a rational kind of grammar of the English language, is a desideratum ; as the present grammatic rules are, in many respects, absurd, being calculated to render it not more but less fit for its professed purpose. Happily, though the principle of utility has been little regarded, and though there has been much blind legislation to establish a despotic system of syntactic propriety, our language is yet one of the simplest and freest in the world ; and, with a very moderate reform, might be wholly disencumbered from all grammatic perplexity and difficulty. And we are surely as competent to simplify and improve our grammar, as to simplify and improve our machinery : and we have only to lay aside one of the double forms of the pronouns, or to agree that either form shall be proper in any position ; to substitute *be* as a regular verb for that jumble of anomaly now employed ; to throw away the useless terminations *est*, *eth*, *es*, or *s* (appended to verbs in connexion with thou and he, &c.), and to disallow all anomalies of verbs, nouns, and adjectives.

The only imaginable objection to such grammatic improvement is, that it would appear strange : but so is every thing new, however excellent, till we become used to it. Every new fashion seems odd, if not ridiculous, when first introduced ; but it soon appears more excellent than that which it supersedes. We have only to set up an enlightened and useful custom in the room of the old, inconvenient grammatic usage, and it will immediately begin to acquire the venerable qualities of the approved, established, and ancient form of speech ; and the oldest institutions and customs were once new.

If it be asked, What is the amount of utility in the proposed alteration? That is considerable in every view of the question. It is important to have a sensible instead of a senseless kind of grammar ; one for which satisfactory reasons can be assigned to youths and foreigners. It is of considerable utility to have an easy in-

stead of a difficult kind of syntactic propriety; for, with the former, the writer or speaker is enabled to direct his whole consideration to the justness of his thoughts and the meaning of his words; but a complicated syntax distracts his attention; and, having to accomplish the two operations of good sense and good grammar at one and the same moment, the consequence frequently is, that both are badly performed. We sometimes find good sense expressed in bad grammar; and we often find good grammar garnishing bad sense; nay, even bad composition is often dressed up in good grammar; and composition essentially good often appears in faulty grammar.

We are willing to subscribe to the motto assumed by Lindley Murray, from the lectures of Dr. Blair: 'They who are learning to compose and arrange their sentences with accuracy and order, are learning at the same time to think with accuracy and order;' as also to another sentence of the same rhetorician: 'The study of arranging and expressing our thoughts with propriety, teaches to think as well as to speak accurately.' But how are we to understand accuracy and propriety in all such propositions? If they mean what is commonly called grammatic propriety and accuracy, such as saying, *thou lovest*, instead of *thou love; we were*, instead of *we was*, &c.; there is just as little connexion between such etiquette and learning to think accurately, or to express thought accurately, as there is between learning to bow, and learning to reason. Logical accuracy of expression is of the highest importance; and this is the proper object of rational grammar: but this is so far from being identical with arbitrary grammar, that the one is often at variance with the other.

The reader is now sufficiently aware of the true character of arbitrary grammar. It was not dictated by reason, and therefore cannot be referred to any rational principles. But though we wish to see it discarded by a general disuse of all anomalies and unmeaning terminations, and changes of verbs and pronouns, yet such reform must be effected (if ever effected) by the influential members of the literary world. All others must be content with established usage. They must endeavour to speak and write grammatically, merely to avoid the imputation of ignorance and illiterateness.

For the use of those who must prudently comply with the prescribed etiquette, or established manner, we shall endeavour to present it in as intelligible a form, and in as small a compass, as possible.

Sect. I.—The Customary Grammar of Pronouns.

The words called pronouns are, I, me, thou, thee, he, him, she, her, it, we, us, you or ye, they, them, who, whom, which, this, these, that, those.

There can be no mistake respecting the meaning of these words, with any persons who have heard them pronounced a few times in the common course of speech: *I* is perceived to indicate the same person as *me*, *thou* as *thee*, *he* as *him*, &c.; but as these double forms of the same words had necessarily, in Latin, different uses, the English grammatists thought a similar diversity proper in the English language; and they have succeeded in making a useless and embarrassing distinction an essential part of grammar. Grammatic propriety, as to the pronouns, may be included in the following particulars:—

These we will range in two classes—

1. I, thou, he, she, who, we, they.
2. Me, thee, him, her, whom, us, them

[Ye or you, it, which, that, this, &c., are not included in the above enumeration; because, fortunately, they have but one form.]

Those of the first class are called by grammarians nominatives, or are said to be in the nominative case: those in the second class are called objectives, or are said to be in the objective case; but we shall, for the sake of intelligibleness, call the one (I, thou, he, she, &c.) the first form; and the other (me, thee, him, &c.) the second form of the pronoun. There is a peculiar manner of employing the pronouns, for which it is not easy to give any rule perfectly accurate. The nearest approach to accuracy seems this: when any one of the words, commonly called pronouns, is employed to indicate an agent, it is put in the first form; and when it is employed to indicate an object of some action, it is put in the second form. Thus: I love thee; thou lovest me; he loves her; she loves him; they love us; we love them; the man whom she loves is the person who loves her. These are all examples of proper grammar, and when inverted they present instances of improper grammar: *Me* love *thou; thee* lovest *I; him* loves *she; her* loves *he; them* love *me; us* love *they;* the man *who her* loves is the person *whom* loves *she*.

Another approximation to accuracy, as a general rule, might be put thus:—When the pronoun stands before the verb it is put in the first form; when it stands after the verb it is put in the second form; as, I see them, they see us, &c. This is the usual, but not the invariable, order of composition in the English language, and therefore the above would not hold as a universal rule; for, in such instances as the following, the second form of the pronoun, or what is called the objective case, stands before the verb: whom seek ye? he whom ye seek. Here, in both cases, *whom* is the object of the verb seek, though it stands before it. Nor is the other imperfect rule less objectionable, viz. when the pronoun denotes an agent, it is in the first form or nominative case, and when it denotes the object of an action, it is in the second form or objective case; for, by employing the verb in what is called the passive, instead of the active voice, the grammatic relation of agent and object is wholly changed, as is evident in the following examples:—Thou art loved by me; I am loved by thee; she is loved by him: not *thee* art loved by *I*, &c.

It is impossible to give accurate and adequate rules concerning that which can never be reduced to rational principles; for 'what reason did not dictate, reason can never explain.'

Perhaps the most unobjectionable rule that can be given is the following:—A pronoun is

always in the first form or nominative case, except first, when it is the object of a verb active or transitive: as, you love *him*, *whom* I hate; he dreads *us*, but despises *them*; we, as well as they, disregard *him*, but respect *her*, &c. In these instances the pronouns *him*, *whom*, *them*, *us*, are, in the language of grammarians, governed by the active verbs (*love*, *hate*, *dreads*, &c.), in the accusative or objective case. Every reader, however little acquainted with the subject before, must now, it is presumed, understand what is meant by the position, Every pronoun is in the first form or nominative case, except first, when the object of a verb active. But there is a second exception, viz. when a pronoun is preceded by any of those words called prepositions; or (to adopt the common grammatic phraseology), when the pronoun is governed by a preposition.

The words called prepositions are, of, to, from, over, through, above, for, by, in, below, beneath, under, into, at, with, before, after, behind, within, without, up, beyond, about, near, down, on, upon, off, against, among, between, &c.

When these words come immediately before any pronoun, it is to be put in the second form, called objective case, or accusative case: as, I went with *them*, from *him* to *her*, &c., &c.: not, I went with *they*, from *he* to *she*, &c.

The most usual grammatical improprieties, as to the pronouns, consist in putting *me* for *I*, *him* for *he*, *her* for *she*, *them* for *they*, &c., in the following manner: Who is there? *Me*, instead of *I*. May William and *me* go to London? It should be William and *I*. *Them* and *us* went out together; *they* and *we* went out together. *Him* and *her* are well matched; *he* and *she* are well matched.

When *he* or *she* is applied to objects devoid of sex, respect must be paid to established usage. The sun must be spoken of as *he*, the moon as *she*, &c. It is absurd to attempt to assign any rational principle for this custom, which varies among different nations; for, with the Anglo-Saxons, the sun was spoken of as *she* and the moon as *he*. We, in this matter, follow the Latins, who followed the Greeks, who probably followed the Egyptians, who perhaps imitated the Babylonians; for much of the general agreement, or common consent, of nations and languages, is referrible, not to reason, but to custom founded on imitation.

Illiterate persons very frequently employ *them* instead of *these* or *those*: thus, *them* men were very noisy; it should be *those* men were very noisy: hand me *them* books,—*those* books, or *these* books.

There is often a departure from propriety in changing from one person and number to another: thus, every man knows *their own* affairs best; it ought to be, every man knows *his* own affairs best. Can any one be certain, at *their* first entrance on life, that *they* shall be always successful; it should be *his* and *he*.

The grammatists have succeeded in establishing a distinction between *who* and *which*: the former is to be employed only when speaking of persons: as, the man *who* came, the woman *who* came, the men *who* are, the buds *which* are, the trees *which* grow, &c.; not the man *which* was, &c., the birds *who* are, &c. Fortunately *that* is equally free from change to denote nominative and accusative, and from any particular manner of application. We can say, the man *that* was here, the bird *that* sings, &c.

Some of the grammatists have endeavoured to interdict the use of *whose* (i. e. properly *who's*), except in connexion with a person, like *who* and *whom*: but they have not succeeded. We can say, the bird *whose* leg was hurt, as well as the man *whose* leg was hurt.

Persons are apt, without care, to blunder in applying *this* and *these*, *that* and *those*: as *this* twelvemonth, instead of *these* twelvemonths: *those* or *these* kind of people, instead of *that* or *this* kind of people.

There is hardly any difference between the application of *this* with its plural *these*, and *that* with its plural *those*. If two objects, or sets of objects, be referred to, *this* and *these* are applied to the nearer, in time, place, or reference; *that* and *those* are applied to the more distant: thus, *this* is a more irksome part of the author's task than *that* which led him to treat of more intellectual topics: *these* are the petty, unmeaning, and useless distinctions of arbitrary grammar now under consideration; but *those* enquiries, to which, in a former part of this work, he directed the attention of the reader, are of a loftier character.

Sect. II.—The customary Grammar of Verbs.

We must exhibit the combinations, or what are called the conjugations of verbs, beginning with that jumble of anomalous incoherence, or of dissimilar parts, commonly designated the substantive or neuter verb *to be*.

I am.		We	are.
Thou art.		Ye or you	
He	is.	They	
She		These	
It		Men	
John		Birds,	
Man,		&c.	
&c.			

The above is denominated the present tense, indicative mood.

I	was.	We	were.
He		Ye or you	
She		They	
It		These	
Man,		Men,	
&c.		Birds,	
Thou wast.		&c.	

The above is called, by some, the imperfect tense; by others, the past tense.

The other parts of what is called the substantive verb, are, *be*, *being*, *been*; as, to *be*; I shall *be*; I *being*; I have *been*.

It is hardly possible for any mistake to happen in these parts, except, perhaps, that children and foreigners would be naturally induced by analogy (unless prevented by the force of custom) to say, I have *beed*, having *beed*, &c., instead of, I have *been*, having *been*.

We have noticed how simple the substantive verb would be, if rendered regular, by discard-

ing all such dissimilar parts as, *am, is, are, was, were:* thus, I *be*, &c., I *beed*, &c., I have *beed*, *being*, having *beed*. But established usage prohibits such reasonable simplicity and utility.

When directly preceded by *let, may, might, can, could, will, would, shall, should*, be is unchanged; thus, let me be, let him be; I may be, he may be; I might be, he might be; I can be, I could be; I will, shall, would, or should be, &c.

The grammatists have conferred on such combinations a number of high-sounding, but insignificant or absurd designations; as, imperative mood, potential mood, &c. &c.

When the substantive verb is immediately preceded by if (‡ gif, i. e. give), though, suppose, grant, and other similar terms, which usually indicate uncertainty or contingency, established usage is so various as to set rules at defiance: thus,

If, Though, &c. } If I be, or if I am;
If thou be, or if thou art;
If he be, or if he is,
&c.
If I was, or if I were;
If thou wast, or if thou wert;
If he was, or if he were,
&c.

Present grammatic usage leans more to *if I were* than *if I was*, and to *if he were* than *if he was;* but, concerning the distinction between indicative and subjunctive, grammatists are as much divided as custom: and according to the old doggrel couplet,

When doctors disagree,
Disciples are free.

The following words, called auxiliary verbs, have no change of termination, except in connexion with thou: thus,

I may, thou mayest, he may, we may, you may, they may.

I might, thou mightest, he might, we might, &c.

I can, thou canst, he can, we can, &c.

I will, thou wilt, he will, we will, &c.

I shall, thou shalt, he shall, we shall, &c.

Wilt and shalt are contractions of *willest, shallest;* as would, should, are of *willed, shalled*, &c.

In all the combinations of *may, can*, &c. (with the exception of what is called the second person singular), there is as much grammatic simplicity as can be wished; for there are no useless and embarrassing inflections or changes: thus,

I, He, We, &c. { may, can, shall, will, could, should, might } be.

I, He, We, You, They, &c. { may, can, will, shall, could, would, should, might } love.

The verb *have*, so much used in connexion with other verbs, is, owing to contraction, of a very irregular form: thus,

I have, thou hast (contraction of *havest*), he hath, or has, contraction of *haveth*, or *haves*, we, ye or you, they, &c., have.

The above is commonly called the present tense.

I, He, We, &c. } had (contraction of *haved*), thou *hadst;* he had; we, you, or they had.

The above is called, by some, the imperfect, by others, the past tense. There is another combination, or reduplication, of the same word, called pluperfect tense.

I, We, You, They } have had: thou hast had.

He, She, It, &c. } hath, or has had; we, you or they have had.

To have is called the infinitive mood; *having* is called the present participle; *had* is called, by some, the past participle; by others, the perfect participle.

Do is also frequently employed in connexion with other verbs; and in what is called the past tense, ‡ *doed*, is now contracted into did:

I do, thou dost, he doth, or does; we, &c., do.

I did, thou didst, he did, we did, &c.

What is denominated a regular verb is combined with nouns and pronouns in the following manner:

I, We, You or ye, They, These, Men, &c. } train, or do train

Thou trainest, or dost train.

He, She, It, Man, &c. } trains, or does train.

This is commonly called present tense, indicative mood.

I, He, She, &c. } trained, or did train.

We, You, They, &c. } trained or did train.

Thou trainedst, or didst train.

This is commonly called either the imperfect or the past tense, indicative mood.

I have trained, &c. is called the perfect tense.

I had trained, &c., is called the pluperfect tense.

I shall or will train, &c., is called the first future tense.

I shall or will have trained, &c., is called the second future tense.

To train is called infinitive mood. Training is called present participle.

Trained is called past participle, or passive participle. But these designations are as useless, for any practical purpose, as they are unmeaning or absurd.

By connecting the past participle of an active or transitive verb, with the substantive verb, what grammatists term the passive voice is formed: thus,

I am trained, &c. *I was trained*, &c. *I have been trained*, &c. I had been trained, &c. *I will* or *shall be trained*, &c. &c. &c. *If I am* or *be trained*, &c. *I may be trained*, &c. &c. &c.

It is wholly unnecessary to exhibit the verbs more fully. The reader will clearly perceive how the various combinations are formed.

All those verbs which do not admit of being combined with the substantive verb are called intransitive or neuter: such as, *sit*, *stand*, *lie*, *sleep*, &c. We can say, I am trained, loved, watched, &c.; but we do not say, I am *sat*, *stood*, *slept*, &c.

One grammatic distinction of verbs, therefore, is into active and neuter, or transitive and intransitive: the former, as already noticed, when acting upon the pronouns, put them in what is called the objective case: thus, I love *him*, not I love *he*; he loves *me*, not he loves *I*.

A certain number of verbs are called irregular, because they do not assume *ed*, for what are called the past tense and perfect participle, like, I love, I loved, I have loved. Thus, according to custom, we must not say, I *beginned*, I have *beginned*; but, I began, I have begun.

The following is a list of the irregular verbs:—

1. Those which admit of no change (as I *put*, I have *put*): put, cost, beat (sometimes *beaten* is employed as the participle; as, he is *beaten*), burst, cast, cut, hit, hurt, let, rid, set, shed, shut, split, sweat, read.

2. Such as have one anomalous termination: as, abide, abode; sell, sold (corruption of *selled*); beseech, besought; bind, bound; bleed, bled; breed, bred; bring, brought; buy, bought; catch, caught; cling, clung; creep, crept; dig, dug; feed, fed; feel, felt; fight, fought; find, found; flee, fled; fling, flung; get, got; gild, gilt (also regular); gird, girt (regular); grind, ground; have, had (contraction of *haved*); hang, hung; also hanged, or regular; hear, heard (contraction of *heared*); held, hold; keep, kept (contraction of *keeped*); lay, laid (contraction of *layed*); lead, led; leave, left; lend, lent; lose, lost; make, made; meet, met; pay, paid (contraction of *payed*); say, said (contraction of *sayed*); seek, sought; send, sent; shoe, shod; shoot, shot; shrink, shrunk; sing, sung; sink, sunk; sit, sat; sleep, slept; sling, slung; slink, slunk; speed, sped; spend, spent; spill, spilt. also spilled; spin, spun; stand, stood; stick, stuck; sting, stung; stink, stunk; string, strung; swing, swung; teach, taught; tell, told (contraction of *telled*); think, thought; weep, wept.

3. Those which have two or more anomalous terminations: as, I begin, I began, I have begun: begin, began, begun; know, knew, known; rise, rose, risen; arise, arose, arisen; blow, blew, blown; awake, awoke (also awaked), awaken; bear (to bring forth), bare, born; bear (to carry), bore, borne; begin, began, begun; bid, bade, also bad and bid, bidden, also bid; break, broke, broken; choose, chose, chosen; cleave, clove or cleft, cloven or cleft; come, came, come; dare, durst, dared; do, did, done; draw, drew, drawn; drive, drove, driven; drink, drank, drunk; eat, ate, eaten; fall, fell, fallen; fly, flew, flown; forsake, forsook, forsaken; freeze, froze, frozen; give, gave, given; go, went, gone; grow, grew, grown; knew, know, known; ring, rang, or rung; run, ran, run; see, saw, seen; shake, shook, shaken; slay, slew, slain; slide, slid, slidden; smite, smote, smitten; speak, spoke, spoken; spit, spat, spit or spitten; spring, sprang, sprung; steal, stole, stolen; stride, strode or strid, stridden; strive, strove, striven; swear, swore, sworn; swim, swam, swum; take, took, taken; tear, tore, torn; throw, threw, thrown; tread, trod, trodden; wear, wore, worn; weave, wove, woven; write, wrote, written.

The reader may compare these irregular verbs with the exhibition of them in a former part of the work, where it is proposed to render them regular.

Pronouns and nouns, when combined with verbs, are commonly distinguished into number and person: thus,

I am, first person singular.
Thou art, second person singular.
He, She, It, Man, &c. } *is*, third person singular.
We are, first person plural.
Ye or *you are*, second person plural.
They, These, Men, &c. } *are*, third person plural.

Thou is obsolete, except in prayer and among the Quakers, and in jocular or contemptuous speech; for, instead of saying thou art, thou mayest, thou lovest, &c., when addressing one person, we say, you are, you may, you love. But in prayer to God we say, thou art, thou mayest, thou wast, thou lovest, &c.

Sect. III.—Directions Concerning the Substantive Verb.

Ungrammatic people are apt to say, I be, thou be, he be, we be, you be, they be; instead of, I am, thou art, he is, we are, you are, they are.

There is seldom any mistake made by persons who are at all accustomed to grammatic language except in the third person; in which the greatest grammatic proficients are apt to blunder, particularly in extemporaneous speaking, when their sentences are long and intricate; employing *is* for *are* and *are* for *is*, and *was* for *were*, or *were* for *was*.

Grammatic propriety admits of this plain rule.

When one object is spoken of, *is* for the present, and *was* for the past, must be employed: when two or more objects are spoken of, *are* for the present, and *were* for the past, must be employed. Thus,

Man *is* a rational creature: he *is* the natural lord of the lower animals, which *are* commonly called irrational; but he *is* mortal as well as they *are*, and some of them *are* longer lived than he *is*. Plato and Aristotle *are* two of the most ancient philosophers whose writings *are* extant; but neither the one nor the other *is* to be compared with some modern philosophers.

Some persons blunder by using *were* instead of *was*: thus, I *were* at London yesterday, he *were* in the country last week, for, I *was* in London yesterday, he *was* in the country last week. But the most common grammatic error is in employing *was* instead of *were*: as, we *was* there, you *was* there, they *was* there, for we *were*, you *were*, they *were*.

The following are instances of grammatic inaccuracy: the improper words are put in Italics.

Was we wrong? *Was* you there? *Was* they here? *Was* the ancients well acquainted with science? *Was* Plato and Aristotle truly great philosophers? There *is* many authors in the present time. There *are* some kind of writings which *is* wholly destitute of merit when tried by the test of utility; which *are* the true standard of excellence. The mechanism of clocks and watches *were* wholly unknown a few centuries ago. Folly and vice *is* often united. There *was* more equivocators than one.

The substantive verb being of frequent recurrence, the grammatic learner should practise much upon it to acquire a correct habit; keeping this obvious principle steadily in view as to the third person, viz., When one object is spoken of, *is* or *was*, not *are* or *were*, must be used: when two or more objects are spoken of, *are* or *were*, not *is* or *was*, must be used; i. e. when the nominative to the verb is singular, *is* and *was* must be employed; but when the nominative is plural, *are* and *were* must be employed.

The following are examples of false grammar:—

The smiles of counterfeit friendship *is* to be suspected; it should be, *are* to be suspected. The number of the inhabitants of Great Britain *are* greatly increased of late years; *is* greatly increased. Nothing but vain and foolish pursuits *are* agreeable to some persons—*is* agreeable. There *is* many occasions in life in which silence and reserve *is* true wisdom; it should be *are*. There *are* many an occasion in life in which silence or reserve *are* true wisdom; it should be *is*; because many an occasion is *one* entity or a singular nominative; as, also, silence or reserve; for every disconnective word (*neither*, *nor*, *either*, *or*, &c.) has just the opposite effect of a connective word, such as *and*. The business that related to ecclesiastical meetings, matters, and persons, *were* to be ordered according to the king's direction,—*was*. The affairs belonging to the church, *was* to be ordered by the king,—*were*. In him *was* happily blended true dignity and affability,—*were*. In him *were* happily blended true dignity with affability,—*was*. The conjunction *and* connects two or more singular nouns or pronouns into a plural nominative; but *with*, *besides*, *as well as*, and such words, do not connect two or more singular nouns and pronouns into a plural nominative. The support of so many of his relations *were* a heavy tax upon his industry,—*was*. The support of his mother and the expense of his sister *was* a heavy tax upon his industry,—*were*. The support of his mother, with the expense of his sister, *were* a heavy tax on his industry,—*was*. What *is* wisdom and virtue to the sons of folly? Reconciliation was offered on terms as moderate as *was* consistent with a permanent union. Not one of all these sons of folly *are* happy. And the fame of his person and of his wonderful actions *were* diffused abroad. The variety of the productions of genius, like those of art, *are* without limit. To live soberly, righteously, and piously, *are* required of all men: here, *to live* (not soberly, righteously, and piously) is the nominative to the verb. To be of a pure and humble mind, to exercise benevolence, to cultivate piety, *is* the sure means of becoming peaceful and happy. Here there are three distinct entities spoken of or enumerated in the nominative to the verb, and, therefore, not *is* but *are* should be used.

Sect. IV. — Directions Concerning the Words called Auxiliaries or Helping Verbs.

These are, may, might, can, could, will, would, shall, should; and, fortunately, they have no change of termination except that they assume *st* in connexion with *thou*: thus, I may, thou mayst, he may, &c.: will and shall, have, instead of *willest*, *shallest*, wilt and shalt.

All, therefore, that the grammatic learner has to remember in using these words is to put *st* with *thou*: thus, thou mayst train, thou mightst train, thou canst train, thou couldst train, thou wilt train, thou shalt train, thou shouldst train.

Do is frequently employed as an auxiliary, and changes thus: I do, thou doest or dost, he doeth, or *doth* or does, we, you, they, &c., do; I did, thou didst, he did, we did, &c.; I have done, thou hast done, &c.

Here all you have to remember, is to put *est* or *st* with *thou*, and *eth* or *es* with *he*, *she*, *it*, or any one object in the third person present: in the past tense *did* remains unchanged, except that *st* is added after *thou*.

Children and foreigners, following analogy, naturally say, I do, we do, &c.; I doed, he doed, we doed, &c., I have doed, &c.; instead of which they must learn to say and write, I do, thou dost, he doth or does, &c.; we did, thou didst, &c.; I have done, &c.

Have is also, with another verb, considered auxiliary, and is similarly contracted: thus, I have, we have, you have, they have, thou hast, he hath or has; I had, thou hadst, he had, we had, &c.

Here, again, you have only to remember to say or write, thou *hast*, he *hath* or *has*, thou *hadst*; in all the other combinations *have* and *had* undergo no change.

The termination *eth* or *th* is now almost obsolete; *es* or *s* being commonly used: thus, he trains, she loves, it rains; not he traineth, she loveth, it raineth.

SECT. V.—DIRECTIONS CONCERNING REGULAR VERBS.

These are, fortunately, very simple; for they have no useless and troublesome changes or terminations, except *est* or *st* in connexion with thou, and *eth*, *th*, *es*, or *s*, in connexion with *he*, *she*, *it*, or any one object or singular nominative in the third person, and what is called present tense. The only mistake, therefore, which persons are apt to commit, who are at all accustomed to grammatic usage, is in not putting *est* in connexion with *thou*, and *es*, or *s* in connexion with *he*, *she*, *it*, or any singular noun, in the present tense. The second person singular, i. e. *thou*, is (as already intimated), never used except in prayer, and by the Quakers, and in jocular or contemptuous discourse. The chief attention, therefore, of the grammatic learner should be directed to the third person singular, present tense; and he has only to keep this explicit rule steadily in view. When the nominative is singular, i. e. when *one* object is connected with the word called a regular verb, *es* or *s* must be affixed; but when the nominative is plural, i. e. when two or more objects are indicated, *es* or *s* must not be affixed. Thus,

John *trains* the pointers: John and James *train* the pointers: John or James *trains* the pointers. William *possesses* good sense, and *loves* instruction; he diligently *applies* to useful learning; and his brothers *possess* much affection for him: they, too, *love* instruction, and *apply* diligently to learning.

The following are instances of grammatic impropriety: the improper words (i. e. in having, or in not having *es* or *s* affixed) are put in Italics.

All joy and tranquillity *dwells* there: much joy, or at least tranquillity, *dwell* there. Thoughtless and intemperate pleasure usually *deteriorate* both mind and character: intemperate pleasures usually *deteriorates* both mind and character. Ignorance and negligence *has* produced the effect: ignorance or negligence *have* produced the effect: ignorance with negligence *produce* bad consequences: negligence as well as ignorance *produce* bad consequences. Not only his fortune, but his reputation *suffer* by his misconduct. The king and his courtiers *has* passed by: the king with his courtiers *have* passed by: the king as well as his courtiers *have* passed by. Nothing *delight* me so much as the works of nature Public and private happiness, national dignity, and all that is most interesting to human beings in this world, *depends* greatly on the character of the government.

In all the above instances, the attentive learner will perceive that the words put in Italics are wrong, because *es* or *s* is affixed when the nominative is plural, or omitted when the nominative is singular. There is some difficulty at first, in ascertaining the nominative, or promptly discovering whether it be plural or singular. To this point, therefore, the grammatic student should apply particular attention, until it becomes quite familiar to him. The following remarks are intended for his assistance:—

1. All nouns and pronouns that are evidently plural, i. e. which indicate two or more objects, must not have *es* or *s* affixed to the verb with which they are connected: as they, these, those, men, women, children, houses, &c.: thus, they love us—not they *loves* us. These are the friends of the poor—not these *is* the friends of the poor. Men naturally love their children—not *loves*. People do not consider how much they are improved by adversity—not people *does* not consider how much *it is* improved by adversity, &c.

2. When two or more singular nouns and pronouns are enumerated or added together, they form a plural nominative to the verb: thus, John and James and William love play: John, James, William, equally love play. Robert and his sister Mary often walk together in the fields: both he and she prefer the country to the city: they are fond of botany, and seldom return from their walks without some botanic specimens.

In all such cases the pronouns must be in the plural number.

3. Two or more circumstances form a plural nominative: thus, to see the beauties of nature, and to listen to the music of the groves, *produce* agreeable sensations—not *produces*. The flashing lightning and the reverberating thunder, naturally *produce* strong emotions, especially in the minds of timid persons. To speak truth, to be diligent in business, punctual to engagements, and honorable in transactions, *are* important rules of prudential wisdom; and they seldom fail to give respectability to the character of every one who diligently observes them.

The conjunctive *and* is the only word that connects two or more nouns, pronouns, or members of a sentence into a plural nominative: thus, the sun that shines, the rain that descends, and the wind that blows, *produce* good to mankind. The conjunction is sometimes omitted: the sun, the rain, the wind, produce good to mankind. Such words as *with*, *as well as*, &c., though they seem connective, do not form a plural nominative: thus, the king with his body guard *has* just passed—not *have*. The king as well as his attendants *has* passed by.

All disconnective words, such as *neither*, *nor*, *either*, *or*, have the opposite effect of *and*. There *is* in many people, neither knowledge nor virtue—not *are*. It is either John or James that *delights* in music. Beauty, wealth, or fame, *is* a very precarious possession.

Except when the noun or pronoun coming after the disjunctive is plural, the nominative is always singular: thus, neither adversity nor enemies *disturb* his equanimity—not *disturbs*. Neither enemies nor adversity disturbs—not *disturb*. It is better in such cases, if possible, to put the plural word last; but, in all such forms of expression, the inconvenience of arbitrary grammar is strikingly obvious.

Concerning nouns which indicate plurality when considered in one view, and unity or individuality when considered in another—there is no uniform grammatic usage. Some authors would write, 'My people *do* not consider; *they have* not known me:' others, my people *does* not consider: *it has* not known me. The multitude eagerly *pursue* pleasure as *their* chief good. The multitude eagerly *pursues* pleasure as *its* chief good. The council *were divided* in their sentiments. The council *was* divided in *its* senti-

ments. In such cases there is, fortunately, not yet any established etiquette, or despotic authority: the speaker or writer is left to the freedom of his own will; only having once made choice as to plural or singular, there is propriety in keeping to it; not saying, my people *do* not consider: *it has* not known me: or, my people *does* not consider: *they have* not known me, &c.

4. Any noun, pronoun, or member of a sentence immediately preceded by a preposition, is never included in the nominative to a verb. This is worthy of attention, as tending to prevent grammatic blunders; many of which happen from supposing that plural nouns, pronouns, or expressions, are the nominative, merely because they come before the verb: hence such instances of false grammar as the following.—The number of the signatures *are* twenty. The number of places *amount* to twenty. Many a failure in the transactions of business and in human affairs *originate* in imprudence. John with James and William *live* in the country. In all these examples, the nominative is singular, and therefore *is*, not *are*, should be employed; and the regular verb should have *s* affixed, thus: the number of the signatures *is* twenty: the number of the places *amounts* to twenty. Many a failure in the transactions, &c., *originates* in imprudence. John, with James and William, *lives* in the country.

The following are instances of grammatic impropriety:—

The language should be perspicuous and correct: in proportion as either of these two qualities *are* wanting, the language is imperfect. Every one of the letters *bear* date after his banishment. Each of his children *behave* badly. Of the diversities in human character, some *is* better and some *is* worse; none *is* wholly faultless. *None*, i. e. *no one*, is properly singular, but custom has assigned to it a plural import. *Some*, like *many*, when a singular noun is not put after it, is always plural: thus, some one *says*; some author says; many a one has said so; many an author has said so, &c. But if these adjectives be not connected with a singular noun, they are always considered plural: thus, some *say*—not *says*. Many *have said* so—not *has said*.

Sect. VI.—Directions concerning the Irregular Verbs.

These have been exhibited; and the grammatic learner should either commit them to memory or practise much upon them. They differ from the regular verbs only in not having *ed* affixed in what is called the past tense. The following are some of the most frequent ungrammatic uses of the irregular verbs:—

I *knowed* him long ago; I have *knowed* him many years—it should be, I *knew*, I *have known*. The wind *blowed* hard last night; the wind has *blowed* hard all day—*blew*, *has blown*. John *buyed* a knife yesterday, and he has *buyed* a pencil to-day—*bought*. The horse *drawed* in the waggon yesterday, and he has *drawed* in the plough to-day—*drew*, *has drawn*. The corn *growed* well in the spring, and has *growed* well ever since—*grew*, *has grown*.

It is to be hoped that literary persons of sufficient influence will set the example of discarding such anomalous proprieties; but, in the mean time, the middle and lower classes of the grammatic world must prudently, perhaps, do homage to established usage.

Sect. VII.—Remarks on the Prepositions.

When, as already noticed, these come immediately before any pronoun which has two forms (called nominative and objective), it must be put in the second form, or objective case: thus, I went with *her* to *them* from *him*: John gave this book to *me*, and said it was a present to both of *us*, &c.—not with *she*, to *they*, from *he*, &c. There is a very general mistake, as if *than* and *as* had the same effect in changing the form of the pronoun: thus, I am older than *her*; she is wiser than *him*; we are not so rich as *them*; but it does not follow that they are more happy than *us*—it should be, than *she*, than *he*, as *they*, than *we*.

The learner should commit the prepositions to memory, or render them familiar by frequent inspection. There is some diversity in their application; for even such as are strictly synonymous, are not all (according to preponderating usage) interchangeable. In the following examples, the first mode of expression is best sanctioned by established usage:—

He found the greatest difficulty *in* speaking, or *of* speaking. His abhorrence *of* Popery—abhorrence *to* Popery. It is a change *for* the better—*to* the better. He was very different then *from* what he is now—*to* what he is now. I differ *from* you in opinion—I differ *with* you in opinion. There is no need *of* it—*for* it. This is no diminution *of* his greatness—*to* his greatness. It is derogatory *from* his authority—*to* his authority. It is no derogation *of* his honor—*to* his honor. It is consonant *to* our nature—*with* our nature.

Such niceties of appropriation may not be wholly disregarded; but liberty is better than slavish subjection to mere custom.

It is of some importance that the grammatic disciple should learn to disuse useless words and syllables. *Upon* and *on* are synonymous; and, as the prefix *up* is useless, it should be discarded: thus, He came *on* horseback—not *upon* horseback. *Along*, *together*, &c., are often uselessly employed before *with*: John went *along* with James—better, John went with James. The ship, *together* with her cargo, was burned—The ship with her cargo was burned—or, The ship and her cargo were burned.

Wherever prepositions can be omitted, without obscuring the meaning, composition is improved by the omission: thus, He went last Monday—is better than, He went *on* last Monday. The rain has been falling a long time—is better than, The rain has been falling *for* a long time. He could not forbear expressing his displeasure—is better than, He could not forbear *from* expressing his displeasure, &c.

It is become a kind of rule, that whenever a present participle (i. e. a verb with *ing* affixed), has *the* before it, *of* should be placed after: "s, At the hearing *of* this intelligence—not At the

hearing this intelligence. But it would be better to omit both *the* and *of*: thus, 'If the cares of Hampden had been directed to the unfolding and guiding his dispositions.' 'Mallet, of the King's Bench, fell under the displeasure of the House of Lords for being privy to the preparing a petition.' It would be better to omit *the* (which is often as useless in composition as a mummy in a deliberative assembly), and write, If the cares of Hampden had been directed to unfolding and guiding his disposition; better still—directed to unfold and guide his disposition. Mallet fell under displeasure—for being privy to preparing a petition; still better—for being concerned in preparing a petition.

Such clumsy modes of expression might be easily avoided; but *the* and *of* are equally useless in such connexions. A good general rule is, to omit every word not necessary to express the meaning of a sentence; and to adopt such modes of construction as will enable the composer to express his meaning in the fewest words. Swerve *from* the path—is better than, Swerve *out of* the path—because, in the first sentence, one word *(from)* performs the office of two words *(out of)* in the last.

There is always a want of dignity in terminating sentences with such insignificant words as prepositions: Whom will you present it *to*? He is a poet I am much pleased *with*—better, To whom will you present it? He is a poet with whom I am much pleased—or still better, I am much pleased with him as a poet.

Sect. VIII.—Directions concerning Adjectives.

1. Ungrammatic speakers and writers are apt to use adjectives instead of adverbs: thus, He walks *bad*—for walks *badly*. He is *miserable* poor—for *miserably* poor. He acts *agreeable* to his instructions—for *agreeably*. He speaks his mind very *free*—*freely*. John went *direct* to the city—*directly*. James is *steady* employed—*steadily* employed.

The rule is, to add *ly* to the adjective to express the manner of any action or quality: thus, He sleeps *soundly*—not He sleeps *sound*. They wait *patiently*—not *patient*. They stand *peaceably* (contraction of ‡ *peaceablely*)—not *peaceable*. He spoke *forcibly* (contraction of ‡ *forciblely*)—not *forcible*. He is *evidently* prejudiced—not *evident*

There is an awkwardness in the double affix *ly*, which is better avoided: He lived soberly and *godlily*—better *piously*. He acted *friendlily* towards me—better *kindly*.

2. Double comparatives and superlatives should not be employed; such as, *more stronger*, more superior, most strongest, &c. *More* is equivalent to the affix *er*, and *most* to *est*; when, therefore, they are united there is manifest tautology.

3. Such adjectives as the following do not admit of comparative or superlative words and affixes, viz. chief, extreme, perfect, right, universal, &c.

It is evidently illogical to say *chiefest*, *extremest*, *more perfect*, *most perfect*, more right, *most* or *more universal*.

More and *most*, or the affixes *er* and *est*, may be employed at pleasure; but the general practice is to use the form which is most agreeable to the ear: thus, *more friendly*, *most friendly*, in preference to—*friendlier*, *friendliest*

4. According to the grammatists the comparative should be employed in reference to two objects: thus, John and James are of the same age, but James is the *stronger* of the two—not *strongest*. This rule, however, is not uniformly observed even by grammatic speakers, and it has some appearance of grammatic pedantry. There is, however, an evident propriety in using only the superlative in reference to three or more objects: Of the three brothers Robert is *most* learned.

The following expressions are faulty: Of all the nations of Europe our own has *fewer* imperfections—*fewest*. The representative form of government is the best of any; better thus: Of all forms of government the representative form is the best; or, the representative is the best of all the different forms of government; or simply, (certainly the best mode of expression), the representative is the best form of government. The simplest and shortest mode of expression is the best *of any*: the two last words are wholly expletive.

Sect. IX.—Remarks on Composition.

The reader must be aware that good composition and good grammar are not identical; that the last is, at best, only an accomplishment; and that the first is of the highest importance. There are two very different senses in which composition may be pronounced good, according as it is viewed in reference to logic or to rhetoric, i.e. as tried by sense or by taste. Concerning the last there is no wisdom in disputing; for it is as arbitrary as fashion. Persons, indeed, who wish to have an agreeable style, will not wholly disregard it; and they may read with advantage the writings of Blair and other rhetoricians. All who wish to have smooth diction will avoid, as much as possible, harsh words and combinations of words in sentences: all who value elegance of composition will avoid low words, phrases, and metaphors. Persons of rhetorical habitudes delight in eulogistic and dyslogistic phraseology; those of a logical determination prefer neutrologistic expression. It is believed that such persons, however different from one another, may consult, with some advantage, a preceding part of this work. All we intend here, is to present a few remarks on composition, considered simply as a medium of meaning, or of mental intercommunication, i. e. as an interpreter of the understanding, without any reference to taste, considered as a distinct entity from sense.

Swift, we believe, defines good composition—'right words in right places.' This, with due allowance for the vagueness of epigrammatic brevity, is a tolerable approximation to a good definition; and it indicates two important particulars necessary to be kept in view: judicious choice and skilful arrangement of words. The best preparation for such judicious choice, and skilful arrangement, is intimate acquaintance with etymology and literature.

The properties essential to a perfect sentence, as defined by Blair, are, 'perspicuity, unity, strength, harmony.' The last property is excluded from our present consideration. A judicious composer will not disregard the ear; but the understanding is the primary object; and he will never sacrifice sense to sound, or meaning to euphony.

Perspicuity, according to the above rhetorician, is resolvable into purity, propriety, and precision. His remarks on purity and propriety are too vague to merit transcription. 'Precision,' he writes, 'signifies retrenching all superfluities, and pruning the expression in such a manner as to exhibit neither more nor less than an exact copy of his idea who uses it.' This does not seem essentially different from his account of strength in composition. 'The first rule which we shall give for promoting the strength of a sentence is, to take from it all redundant words.' 'As sentences should be divested of superfluous words, so, also, should they appear without superfluous members.' Much that he advances on strength belongs to harmony. Two or three of his remarks on unity seem worthy of transcription. 'Unity is an indispensable property. The very nature of a sentence implies one proposition to be expressed. It may consist indeed of parts; but these parts must be so intimately knit together as to make the impression upon the mind of one object, not of many. To preserve this, we must observe that, during the course of the sentence, the scene should be changed as little as possible. There is generally, in every sentence, some person or thing which is the governing word. This should be continued so, if possible, from the beginning to the end. Should a man express himself in this manner: After we came to anchor, they put me on shore, where I was saluted by all my friends, who received me with the greatest kindness. Here, though the objects are sufficiently connected, yet, by shifting so often the person—*we*, *they*, *I*, *who*—the sense is nearly lost. The sentence is restored to its proper unity by the following construction: Having come to anchor I was put on shore, where I was saluted by all my friends, and received by them with the greatest kindness. Another rule is, never to crowd into one sentence things which have so little connexion that they might be divided into two or more sentences. The following is an instance of faulty composition: Their march was through an uncultivated country, whose savage inhabitants fared hardly, having no other riches than a breed of lean sheep, whose flesh was rank and unsavory, by reason of their continual feeding upon seafish. Here the scene is repeatedly changed. The march of the Greeks, the description of the inhabitants, through whose country they passed, the account of their sheep, and the reason of their sheep being disagreeable food, make a jumble of objects slightly related to each other, which the reader cannot, without difficulty, comprehend under one view.'

Definiteness seems the single word most expressive of our notion of good composition; for indefiniteness is the most predominant fault, and that which, more than any other, defeats the professed purpose of language. The great object of every composer should be, to express his meaning so distinctly as to render doubts concerning it impossible. Rules never can create excellence, but they may afford considerable assistance in acquiring mastery in an art; and for the benefit of young composers we venture a few directions.

1. *Endeavour to express your meaning in as few words as possible.*—The shortest is (all other things being equal) the best mode of expression. Many a bad sentence is rendered a good one merely by throwing away useless expletives or superfluous words. Such terms as verbality, verbiage, verbosity, wordiness, indicate the general sentiment concerning the present question, and admonish the composer that his words should be few and well ordered. He will find this the surest guide—the best assistant in composing well; whilst it tends, more than any other rule, to relieve him from perplexity, and to render his task easy. 'Feeble writers,' says Blair, 'employ a multitude of words to make themselves understood, as they think, more distinctly; and they only confound the reader.' 'The first rule which we shall give for promoting the strength, [substitute definiteness] of a sentence is, to take from it all redundant words. Whatever can be easily supplied in the mind is better omitted in the expression. It is certainly one of the most useful exercises of correction, in reviewing what we have written, to contract that round-about mode of expression, and to cut off those useless excrescences which are usually found in a first draught.' 'As sentences should be divested of superfluous words, they should also appear without superfluous members. In opposition to this is the fault so frequently met with, of the last member of a period being no other than the repetition of the former in a different dress. For example, speaking of beauty, 'the very first discovery of it,' says Mr. Addison, 'strikes the mind with inward joy, and spreads delight through all its faculties.' In this instance scarcely any thing is added by the second member of the sentence to what was already expressed in the first.'

The composition of Addison was long considered the 'model of the middle style;' but it is remarkably surcharged with redundant words, and young composers will find it a very improving exercise to practise condensation on the loose papers of the Spectator, 'by contracting round-about modes of expression and cutting off useless excrescences.' Let them try how many superfluous words can be discarded; or with what brevity of expression the same meaning may be conveyed. Let them try how much better than Addison they can express a meaning or construct a sentence. This emulous mode of studying the most excellent compositions is far more conducive to improvement than imitation, which tends more to enslave and enfeeble the imitator than to produce original excellence. It should be a rule never to use a word, or mode of expression, merely because it has been employed. Bad sentences escape from the best writers; and, therefore, instead of relying on doubtful authorities, or following the guidance

of precedents, young composers should endeavour to erect a standard for themselves by acquiring a perfect knowledge of language, i. e. by intimate acquaintance with etymology and literature. Many of the worst modes of expression are imitated faults; and, when called in question, persons using them can give no better reason than that they have seen or heard them.

2. *Avoid as much as possible insignificant words.*—Of all the parts of speech, those commonly called articles, conjunctions, prepositions, and adverbs, are the least significant. It is a good general rule, therefore, to omit them whenever the omission does not mar the meaning of composition, or do violence to established usage; and to adopt such modes of expression as render them least necessary.

The same remark applies to pronouns, especially those of the third person, and the relatives and demonstratives. When these are much employed, the usual consequence is indefiniteness; for as there are, generally, several preceding entities, the reader has to guess which of them is referred to by *it*, *they*, *who*, *which*, &c., when such words are frequently interposed. And, though skilful disposition or collocation will tend greatly to secure distinctness, the best general rule is to adopt such modes of construction as render fewest of those words necessary which have any tendency to throw confusion or obscurity over composition.

3. *Guard against tautology in employing synonymous words.*—This is a very common fault. Many writers suppose that they are enriching their composition with additional thoughts, when they are only encumbering it with synonymous *terms*; or that they are expressing their meaning more fully and forcibly, when they are only muffling it in verbality. This is so much the general practice—the established usage in composition, that young composers should rather lean to the opposite extreme; and in the structure of language—all the usual modes of expression are so essentially tautologic and verbose, that there is very little danger of pruning verbality too unsparingly, and of not leaving sufficient foliage (as advised by Dr. Blair) to shelter and adorn the *fruit*.

4. *Adopt that arrangement of words which presents your meaning most distinctly.* The following remark of Dr. Blair is judicious: 'From the nature of our language, a leading rule in the arrangement of our sentences is, that the words or members most nearly related, should be placed as near to each other as possible, so as to make their mutual relation clearly appear. This rule is too frequently neglected even by good writers. A few instances will show both its importance and its application.'

Some of these instances we will, for the sake of brevity, present in our own manner: 'By greatness,' says Mr. Addison, 'I do not only mean the bulk of any single object, but the largeness of a whole view.' Better thus: I mean by greatness, not merely the magnitude of any single object, but that of a whole view. 'Are these designs,' says lord Bolingbroke, 'which any man who is born a Briton, in any circumstances, in any situation, ought to be ashamed or afraid to avow?' Better thus: Should any Briton ever be ashamed or afraid to avow these designs: or, Are not these designs worthy the fearless avowal of every Briton? 'It is folly to *pretend* (Sherlock's Sermons) to arm ourselves against the accidents of life by heaping up treasures, which nothing can protect us against but the good providence of our Heavenly Father.'—It is folly to endeavour, by heaping up riches, to arm ourselves against the accidents of life: for nothing can protect us against them but the good providence of our Heavenly Father.—The reader may compare the above with Blair's Lectures.

The following quotations are remarkable instances of faulty composition.

'The tide of fortune had set so strongly in favor of the king, immediately after the surrender of Bristol, as would infallibly have reduced hearts less devoted and minds less energetic, than those of many who guided the resistance against him, to despair.'—The tide of fortune, which set so strongly in favor of the king, immediately after the surrender of Bristol, would infallibly have reduced to despair, hearts less devoted and minds less energetic than those which guided the resistance against him. 'This *had*, for a series of years, *had* the effect of giving an appearance of *peace* and *tranquillity* to Ireland, which had been almost without example.' Perhaps all this means nothing more than, This gave to Ireland, for a series of years, an unusual appearance of tranquillity. 'In unison with these proceedings, on the part of those who supported the public cause and commensurate with the urgency of the case, were the preparations made for the protection of the metropolis.'—The preparations made for the protection of the metropolis, were in unison with these proceedings, and commensurate with the urgency of the case. The sentence is still very indifferent: 'on the part of those who supported the public cause,' is mere surplus.

These examples furnish abundant evidence that there is a close connexion between multiplicity of words and faulty arrangement. We have, said, that many a bad sentence is rendered a good one, simply by throwing away useless words. In the following instances the useless parts are marked by italics.

'The king's march against Gloucester was the first decisive evidence *that was afforded* of the change in public affairs.' 'The defence of the city was conducted with great courage *and resolution*.' 'The events announced were far from being such as he wished *them to prove*,'—'which are requisite to *the* form*ing* a great warlike leader,'—'devoted himself to *the* forward*ing* the cause of his sovereign:' still better, devoted himself to promote the cause of his sovereign; better still, he devoted himself to the cause of his sovereign; for 'whatever can be easily supplied in the mind is better omitted in the sentence.' The judicious use of ellipsis tends rather to produce explicitness than obscurity, whilst it affects brevity. We ought to put others to as little trouble as possible in apprehending our meaning; hence the importance of endeavouring to present it to them both distinctly and concisely. The two grand qualities, therefore, of good composition,

are definiteness and conciseness, or perspicuity and brevity. These excellencies rest not on taste, but on sense; and every sensible man may, if he chooses, possess them.

A few remarks concerning *metaphor* may not be wholly without utility. A great part of language is, of necessity, metaphoric, and therefore we cannot reasonably interdict figurative expression. Whether a better system of mental intercommunication might not be invented is a fair question for consideration; but that which we now employ is essentially metaphoric; and perhaps more logical error, or metaphysical absurdity, results from mistaking figurative for literal phraseology, than from the injudicious use of metaphors. All, therefore, that can be reasonably insisted on, is a judicious use of figurative language.

The following suggestions, perhaps, deserve the attention of young composers:

Never employ metaphor for the sake of metaphor, i. e. never adopt a figurative except when it evidently expresses your meaning more effectually than a literal mode of expression. The converse of this seems the rule adopted by many. They appear never to employ plain unmetaphoric diction, but when they cannot conveniently avoid it: they are always making an effort to produce effect, or to display their genius: their main object is to surprise or astonish by the novelty and brilliancy of their imagery. Take the following specimens from a work now before us: 'Too agitated to still down his bitter and perturbed spirit to the tranquil pursuit of his art, the stingings of his lacerated and disappointed feelings found vent in a medium more adapted to give a rapid and ready expression to powerful emotion.' 'The answer of the poet, whose own feelings of misery come at once upon the canvas, is the very epic of melancholy discontentment—a discontentment engendered by the finest sensibility, blasted in its hopes and its efforts for ame liorating human sufferings and amending human institutions.' 'But that fatal pre-eminence which the lowly worship and the envious malign, gives only a finer faculty for suffering; and while it opens the sources of petty vexations, and exalts the poignancy of the greater moral afflictions, it places its gifted victim at an immeasurable distance from the heartless enjoyments and trifling pleasures of more ordinary humanity.'

These are eloquent specimens of the metaphoric prolification of the present literature, whose characteristic peculiarities are ambitious display and striking effect.

When the author or the orator is actuated by any rhetorical rage for metaphors, it is not wonderful that they should be strangely obtruded and jumbled and mangled and misapplied; or, that they should frequently answer any purpose save that of being a distinct medium of intercommunication between one understanding and another. It would be easy to collect in a short space of time a thousand objectionable examples from the most eloquent and tasteful productions of the current literature; but the young composer should view them not as patterns of excellence or models for imitation, but as beacons to warn him of the danger of venturing eagerly, among metaphors on which so many make shipwreck of reason and common sense. When the imagination is not the servant but the tyrant of the understanding; there is some degree of mental derangement.

GRAMMARIAN was anciently a title of honor, literature, and erudition, being given to persons accounted learned in any art or faculty. But it is now often used as a term of reproach, to signify a dry plodding person, employed about words and phrases, but inattentive to the true beauties of expression and delicacy of sentiment. The ancient grammarians, called also philologers, must not be confounded with the grammatists, whose sole business was to teach children the first elements of language. Varro, Cicero, Messala, and even Julius Cæsar, thought it no disgrace to be ranked amongst grammarians, who had many privileges granted to them by the Roman emperors.

GRAMMONT (Philibert, count), son of Antony, duke of Grammont, a celebrated wit of Charles II.'s court. He served in the French army under the prince of Condé and Turenne, but, having paid his addresses to a lady who was also a favorite of Louis XIV., he was obliged to retire to England, and was highly distinguished by Charles II. He was indebted for his chief support to his gambling habits, in which he was very successful. He married Miss Elizabeth, daughter of Sir George Hamilton, and died in 1707. His Memoirs were written by his brother-in-law, count Hamilton, who followed the fortunes of James II.

GRAMMONT, or GEERSBERGHE, a town of West Flanders, on the Dender, and divided by that river into the upper and lower towns. Its manufactures are linen, carpeting, and paper. There is a canal to Alost. Population 6000. Fourteen miles east by south of Oudenarde, and twenty-one W. S. W of Brussels.

GRAMPIAN HILLS, a chain of mountains in Scotland, which run from east to west, almost the whole breadth of the kingdom. See SCOTLAND.

GRAMPOUND, a town of England, in Cornwall, seated on the Valle, over which there is a bridge. The inhabitants have a considerable manufacture of gloves; and send two members to parliament. It is supposed to be the Voluba of the ancients, as it stands on the same river; and, on the building of the bridge, the name was changed into Grand-pont. It was made a borough by Edward III., and endowed with several privileges, particularly freedom from toll through all Cornwall, a market on Saturday, and three fairs; which the burgessers hold of the duchy of Cornwall in fee farm, at the rent of about twelve guineas. Its privileges were confirmed by Henry VIII.; but it did not send members to parliament till the reign of Edward VI. It is a corporation, and has a mayor, eight magistrates, a recorder, and town clerk. The

mayor is chosen annually the Tuesday before Michaelmas, and the members by the majority of the magistrates and freemen. It is forty-six miles south-west of Launceston, and 260 west by south of London.

GRAN, a county and town of Hungary, lying on both sides the Danube. Its extent is about 406 square miles, and wine, corn, and fruits are cultivated; but the greater part of the country is covered by the mountains of Arpas, which contain numerous marble quarries. Population of the county 47,000.

The town, also called Esztergom, is a free town of Hungary, and an archbishop's see, at the conflux of the Danube and the Gran. Two new streets have been lately added to it. The Danube is crossed by a bridge, consisting of a large platform fixed across two barges, and fastened to other boats at anchor. It is very wide here. The archbishop is primate of Hungary, and possesses various high prerogatives, particularly that of crowning the king. The citadel stands on a lofty hill, and the town-house is a good building. Gran has been several times taken by the Turks. A dreadful fire broke out here in April, 1818, which destroyed 220 houses, the hospital, military chapel, &c. Thirty miles north-west of Buda, and seventy-five south-east of Presburg. Long. 18° 50′ E., lat. 47° 40′ N.

GRAN, a river of Upper Hungary, which rises in the palatinate of Gomer, and flows into the Danube, opposite to the above town.

GRANADA, or Upper Andalusia, is a province of the south of Spain, about 200 miles in length, and from forty to seventy in breadth, lying east and west on the Mediterranean: on the north is a part of Andalusia; and its south-west extremity approaches Gibraltar. It is sometimes called the kingdom of Granada, and is still governed by the laws of Castile, and divided into the four bishoprics of Granada, Malaga, Almeria, and Guadix. The lofty snow-crowned ridges of the Sierra Nevada, and the Alpuxarras, traverse it, and the temperature varies according to the situation, being cold among the mountains, in the valleys extremely hot and temperate, though with a hot wind on the sea-coast. The Viga (orchard) de Granada, about thirty miles in length and sixteen in breadth, is one of the richest and most delightful valleys in the world. It is of great elevation when compared to the level of the sea; but the mountains which surround it rise to a great height above it. The tracts near the Xenil, which are often overflowed from the mountains, are laid out chiefly in rice, following hemp and flax as a crop. Of the vines, cultivated on the sides of the hills, the wine is but indifferent. Silk is better attended to. On the coast are raised coffee, sugar, and indigo. The other productions are lemons, oranges, pomegranates, olives, figs, almonds, capers, wax, and honey. Raisins are also a considerable article of export. The mountains are rich in marble, minerals, and ores, and the province has several salt springs.

Granada made a part of the ancient Bætica; and was inhabited by the Bastuli, the Sexitani, &c. It was the last Spanish kingdom possessed by the Moors, and was not annexed to the crown of Castile until 1492. The Moorish features are still to be traced in the present population; and their monuments are found throughout the province. On their surrender to the Castilians, in 1492, promises were made them of religious liberty; but in 1500 a persecution commenced which compelled them to quit the kingdom; and, with the great numbers that emigrated, there also fled the chief sources of public prosperity. The present population is about 700,000. The export trade of the province takes place principally at Malaga. The other towns of importance are the capital, Ronda, Loxa, and Almeria. Martello towers are erected in certain parts of the coast.

GRANADA, a city in the south of Spain, and capital of the foregoing province, is situated partly on hills, and partly on level ground, at the extremity of the Vega de Granada. It exhibits to the traveller the form of a brilliant half moon, its streets rising above each other, crowned by the ALHAMBRA. See that article. On entering, the streets are found narrow and irregular; the buildings displaying visible marks of decay.

Granada is divided into four quarters, and stands on two distinct hills, the Darro flowing betweem them, and falling into the larger stream of the Xenil, outside the walls.

Granada is nearly as large as in the days of its independence. The cathedral containing an elegant monument to the memory of Philip I and his queen Johanna, and another to Ferdinand and Isabella, has several paintings of Alonzo Cano: the archbishop's palace is also an elegant building, as likewise is the mansion of the captain general of the province. But the grand ornament of Granada is the Alhambra.

Granada was formerly called Illiberia, and founded, says tradition, by Liberia, great-granddaughter of Hercules, daughter of Hispan, and wife to Hesperus, a Grecian prince, and brother to Atalanta. Others maintain that it was founded by Iberus, grand-son of Tubal, and that it took the name of Granada, or Granata, from Nata, the daughter of Liberia; the word Gar, in the language of the time, signifying grotto, i. e. the grotto of Nata, because that princess studied astrology and natural history in this country. It is certain that such a person as Nata, or Natayde, existed in the first ages of Granada; and that, in the place where the Alhambra now stands, there was a temple dedicated to Nativala. Granada is said to have been founded A. A. C. 2808. In the time of the Romans it was a municipal colony. A description of Granada, in Latin, written in 1560, by George Hosnanel, a merchant at Antwerp, who travelled into Spain, is to be found in the work, entitled Civitates Orbis Terrarum, printed at Cologne in 1576; with a good plan of the city of Granada. This city is 125 miles south-west of Murcia, and 183 south of Madrid.

GRANADA NEW, once a province of Spanish South America, has now become the western part of the new republic of COLOMBIA, in which, or our article SOUTH AMERICA, all the interesting features of the present state and history of this province are detailed.

GRANADE. See GRENADE

GRANADIER. See GRENADIER.

GRANADILLOES, or GRENADINES, dangerous islands of the Caribbees, in America, having St. Vincent on the north, and Granada on the south. They were ceded to Britain by the treaty of peace in 1763.

GRANARY. In constructing a granary Sir Henry Wotton advises to make it look toward the north, because that quarter is the coolest and most temperate. Mr. Worlidge observes, that the best granaries are built of brick, with quarters of timber wrought in the inside, to which the boards may be nailed, with which the inside of the granary must be lined so close to the bricks, that there may be no room left for vermin. There may be many stories one above another, which should be near each other; because the shallower the corn lies, it is the better, and more easily turned. The two great cautions to be observed in erecting granaries are, to make them sufficiently strong, and to expose them to the most drying winds.

The method of managing corn in many parts of England, particularly in Kent, is this:—To separate it from dust and other impurities, after it is threshed, they toss it with shovels from one end to the other of a long and large room; the lighter substances fall down in the middle of the room, and the corn only is carried from end to end of it. After this they screen the corn, and then, bringing it into the granaries, it is spread about half a foot thick, and turned about twice in a week: once a week they also repeat the screening it. This management they continue about two months; after which they lay it a foot thick for two months more; and in this time they turn it once a week, or twice if the season be damp, and now and then screen it again. After about five or six months they raise it to two feet thickness in the heaps, and then they turn it once or twice in a month, and screen it now and then. After a year they lay it two feet and a half or three feet deep, and turn it once in three weeks or a month, and screen it proportionably. When it has lain two years or more, they turn it once in two months, and screen it once a quarter; and how long soever it is kept, the oftener the turning and screening is repeated, the better the grain will keep. It is proper to leave an area of a yard wide on every side of the heap of corn, and other empty spaces, into which they turn and toss the corn often. In Kent they make two square holes at each end of the floor, and one round in the middle, by means of which they throw the corn out of the upper into the lower rooms, and so up again, to turn and air it the better. Their screens are made with two partitions, to separate the corn from the dust which falls into a bag, and when sufficiently full this is thrown away, the pure and good corn remaining behind. Corn has by these means been kept in our granaries thirty years: and it is observed, that the longer it is kept the more flour it yields in proportion to the corn, and the purer and whiter the bread is, the superfluous humidity only evaporating in the keeping. At Zurich, in Switzerland, they have been said to keep corn eighty years, or longer, by these methods. The public granaries at Dantzic are seven, eight, or nine stories high, having a funnel in the midst of every floor to let down the corn from one to another. They are built so securely, that, though every way surrounded with water, the corn contracts no dampness, and the vessels have the convenience of coming up to the walls for their lading. The Russians preserve their corn in subterranean granaries of the figure of a sugar loaf, wide below and narrow at top: the sides are well plastered, and the top covered with stones. They take care to have the corn well dried before it is laid into these storehouses, and often dry it by means of ovens; the summer dry weather being too short to effect it sufficiently. At Dantzic the wheat, barley, and rye, of a great part of Poland, are there laid up in parcels of twenty, thirty, or sixty lasts in a chamber, according to the size of the room; and this they keep turning every day or two, to keep it sweet and fit for shipping. A thunder storm has sometimes been of very terrible consequences to these stores; all the corn having been found so much altered by one night's thunder, that though over night it was dry, fit for shipping or keeping, and proper for any use, yet in the morning it was found clammy and sticking. In this case there is no remedy but the turning of all such corn three or four times a day for two months or longer; in which time it will sometimes be recovered, though sometimes not. This effect of thunder and lightning is only observed to take place in such corn as is not a year old, or has not sweated thoroughly in the straw before it was threshed out. The latter inconvenience is easily prevented by a timely care; but, as to the former, all that can be done is carefully to examine all stores of the last year's corn after every thunder storm, that if any of it have been so affected, it may be cured in time; for a neglect of turning will utterly destroy it. According to Vitruvius's rules, a granary should always be at the top of a house, and have its openings only to the north or east, that the corn may not be exposed to the damp winds from the south and west, which are very destructive to it; whereas the contrary ones are very necessary and wholesome to it, serving to cool and dry it from all external humidity, from whatever cause. There must also be openings in the roof to be set open in dry weather, partly to let in fresh air, and partly to let out the warm effluvia which are often emitted by the corn. The covering of the roofs should always be of tiles, because in the worst seasons, when the other openings cannot be safe, there will always be a considerable inlet for fresh air, and a way out for the vapors by their joinings, which are never close. If there be any windows to the south, great care must be taken to shut them up in moist weather, and during hot southern winds. There must never be a cellar, or any other damp place under a granary, nor should it ever be built over stables; for, in either of these cases, the corn will certainly suffer by the vapors, and be made damp in the one case and ill tasted in the other.

The preservation of grain from the ravages of insects may be best effected by timely and frequent screening, and ventilation; as little or no inconvenience will follow corn lodged dry, but what evidently results from a neglect of these

precautions. For, whether the obvious damage arise from the weevil, the moth, or the beetle, that damage has ceased at the time the vermin make their appearance under either of these species, they being, when in this last state of existence, only propagators of their respective kinds of vermiculi · which, while they continue in that form, do the mischief. In this last, or insect state, they eat little, their principal business being to deposit their eggs, which unerring instinct prompts them to do where large collections of grain furnish food for their successors while in a vermicular state. It is therefore the business of industry to prevent future generations of these ravagers, by destroying the eggs previous to their hatching; and this is best accomplished by frequent screening, and exposure to draughts of wind or fresh air. By frequently stirring the grain, the cohesion of their eggs is broken, and the nidus of those minute worms is destroyed, which on hatching collect together, and weave numerous nests of a cobweb-like substance for their security. To these nests they attach, by an infinity of small threads, many grains of corn together, first for their protection, and then for their food. When their habitations are broken and separated by the screen, they fall through its small interstices, and may be easily removed from the granary with the dust. Those that escape an early screening will be destroyed by subsequent ones, while the grain is but little injured; and the corn will acquire thereby a superior purity. But by inattention to this, and sometimes by receiving grain already infected into the granary, these vermin, particularly the weevil, will soon spread themselves in that state every where upon the surface, and darken the walls by their number. Under such circumstances hens, with new hatched chickens, if turned on the heap, will traverse, without feeding (or very sparingly so) on the corn, wherever they spread; as they seem insatiable in the pursuit of these insects. When the numbers are reduced within reach, a hen will fly up against the walls, and brush them down with her wings, while her chickens seize them with the greatest avidity. This being repeated as often as they want food, the whole species will in a day or two be destroyed. Of the phalæna, or moth, and the small beetle, they seem equally voracious: on which account they may be deemed the most useful instruments in nature for eradicating these noxious and destructive vermin.

M. Du Hamel and Dr. Hales recommend various contrivances for blowing fresh air through corn laid up in granaries or ships, to preserve it sweet and dry, and to prevent its being devoured by weevils or other insects. This may be done by nailing wooden bars or laths on the floor of the granary about an inch distant from each other, when they are covered with hair-cloth only: or at the distance of two or three inches, when coarse wire-work, or basket-work of osier, is laid under the hair-cloth, or when an iron plate full of holes is laid upon them. These laths may be laid across other laths, nailed at the distance of fifteen inches, and two or more deep, that there may be a free passage for the air under them. The under laths must come about six inches short of the wall of the granary at one end of them; on which end a board should be set edgeways, and sloping against the wall: by this disposition a large air-pipe is formed, which, having an open communication with all the interstices between and under the bars, will admit the passage of air below forcibly through a hole at the extremity of it, into all the corn in the granary, that will consequently carry off the moist exhalations of the corn. The ventilators for supplying fresh air may be fixed against the wall, on the inside or outside of the granary, or under the floor, or in the ceiling; but, wherever they are fixed, the handle of the lever that works them must be out of the granary, otherwise the person who works them would be in danger of suffocation, when the corn is fumed with burning brimstone, as is sometimes done for destroying weevils. Small moveable ventilators will answer the purpose for ventilating corn in large bins in granaries, and may be easily moved from one bin to another. If the granary or corn ship be very long, the main air-pipe may pass lengthwise along the middle of it, and convey air, on both sides, under the corn. In large granaries, large double ventilators, laid on each other, may be fixed at the middle and near the top of the granary, that they may be worked by a wind-mill fixed on the roof of the building, or by a water-mill. The air is to be conveyed from the ventilators through a large trunk or trunks, reaching down through the several floors to the bottom of the granary, with branching trunks to each floor, by means of which the air may be made to pass into a large trunk along the adjoining cross walls: from these trunks several smaller trunks, about four inches wide, are to branch off, at the distance of three or four feet from each other, which are to reach through the whole length of the granary, and their farther ends are to be closed: seams of one-tenth or one-twelfth of an inch are to be left open at the four joinings of the boards, where they are nailed together, that the air may pass through them into the corn. In some of these smaller trunks there may be sliding shutters, to stop the passage of the air through those trunks which are not covered with corn; or to ventilate one part of the granary more briskly than others, as there may be occasion. There must also be wooden shutters, hung on hinges at their upper part, so as to shut close of themselves; these must be fixed to the openings in the walls of the granary on their outside; by these means they will readily open to give a free passage for the ventilating air, which ascends through the corn to pass off, but will instantly shut when the ventilation ceases, and thereby prevent any dampness of the external air from entering: to prevent this, the ventilation should be made only in the middle of dry days, unless the corn, when first put in, is cold and damp. In smaller granaries, where the ventilators must be worked by hand, if these granaries stand on staddles, so as to have their lowest floor at some distance from the ground, the ventilators may be fixed under the lowest floor, between the staddles, so as to be worked by men standing on the ground, without or within the granary. A very commodious and cheap ventilator may be made for small grana-

ries, by making a ventilator of the door of the granary; which may be easily done by making a circular screen, of the size of a quarter of a circle, behind the door; but for this purpose, the door must open, not inwards but outwards of the granary, so that as it falls back, it may be worked to and fro in the screen; which must be exactly adapted to it in all parts of the circular side of the screen, as well as at the top and bottom. But there must be a stop at about eight or ten inches from the wall, to prevent the door from falling back farther; that there may be room for a valve in the screen to supply it with air: which air will be driven in by the door, through a hole made in the wall near the floor, into the main air-trunk, in which there must be another valve over the hole in the wall, to prevent the return of the air.

GRAND, *adj.*
GRAND'AM, *n. s.*
GRAND'CHILD, *n. s.*
GRAND'DAUGHTER, *n. s.*
GRAN'DEE, *n. s.*
GRAN'DEVITY, *n. s.*
GRAN'DEVOUS, *adj.*
GRAN'DEUR, *n. s.*
GRAND'FATHER, *n. s.*
GRAN'DIFIC, *adj.*
GRAN'DITY, *n. s.*
GRAND'MOTHER, *n. s.*
GRAND'SIRE, *n. s.*
GRAND'SON, *n. s.*
GRAN'NAM, *n. s.*

Fr. *grand*; Ital. *grande*; Lat. *grandis*; Gr. γεραιος. The primary meaning is ancient, and hence it was extended to greatness in general, particularly in a good sense: illlustrious; high in power; a dignity: used to signify ascent or descent of consanguinity, as grandfather, grandchild. Great age, as grandevity. High rank, as grandee. External splendor, either in a literal or figurative sense, is called grandeur. Grandific is making great: and grandity is an obsolete word, synonymous with grandeur. Grandam and grannam are contractions of grand and dame, and form familiar appellations of grandmother.

I am a daughter, by the mother's side
Of her that is *grand-mother* magnifide
Of all the gods, great Earth, great Chaos Child.
Spenser. Faerie Queene.

Thy *grandmother* Lois, and thy mother Eunice.
2 *Tim.* i. 5.

I meeting him, will tell him that my lady
Was fairer than his *grandam*, and as chaste
As may be in the world. *Shakspeare.*

Thinkest thou, that I will leave my kingly throne,
Wherein my *grandsire* and my father sat? *Id.*

Why should a man whose blood is warm within,
Sit like his *grandsire* cut in alabaster? *Id.*

One was saying that his great-*grandfather* and *grandfather*, and father, died at sea: said another that heard him, an' I were as you, I would never come at sea. Why, saith he, where did your great-*grandfather*, and *grandfather*, and father die? He answered, where but in their beds? He answered, an' I were as you, I would never come in bed.
Bacon.

Augustus Cæsar, out of indignation against his daughters and Agrippa his *grandchild*, would say that they were not his seed, but imposthumes broken from him. *Id.*

God hath planted, that is, made to grow the trees of life and knowledge, plants only proper and becoming the paradise and garden of so *grand* a Lord.
Raleigh's History.

Our poets excel in *grandity* and gravity, smoothness, and property, in quickness and briefness.
Camden.

These hymns may work on future wits, and so
May great-*grandchildren* of thy praises grow. *Donne.*

Fair daughter, and thou son and *grandchild* both!
Milton.

What cause
Moved our *grand* parents in that happy state,
Favoured of heaven so highly, to fall off
From their Creator. *Id.*
Our *grand* foe, Satan. *Id.*
So clomb this first *grand* thief into God's fold. *Id.*

He 'scaping, with his gods and reliques fled,
And towards the shore his little *grandchild* led.
Denham.

Thy *grandsire*, and his brother, to whom fame
Gave, from two conquered parts o' th' world, their name. *Id.*

He hoped his majesty did believe that he would never make the least scruple to obey the *grandchild* of King James. *Clarendon.*

As pirates all false colours wear
T' entrap th' unwary mariner,
So women to surprise us spread
The borrowed flags of white and red,
Display 'em thicker on their cheeks
Than their old *grandmothers* the Picts. *Hudibras.*

We have our forefathers and great *grandames* all before us as they were in Chaucer's days. *Dryden.*

Thy tigress heart belies thy angel face:
Too well thou shewest thy pedigree from stone;
Thy *grandame's* was the first by Pyrrha thrown.
Id.

Almighty Jove augment your wealthy store,
Give much to you, and to his *grandsons* more. *Id.*

The women
Cryed, one and all, the suppliant should have right,
And to the *grandame* hag adjudged the knight. *Id.*

Some Housewives teach their teachers how to pray,
Some Clarks have shewed themselves as wise as they;
And in their Callings, as discreet have bin,
As if they taught their *grandames* how to spin.
George Withers.

As a magistrate or great officer, he locks himself from all approaches by the multiplied formalities of attendance, by the distance of ceremony and *grandeur*.
South.

When a prince or *grandee* manifests a liking to such a thing, men generally set about to make themselves considerable for such things. *Id.*

They had some sharper and some milder differences, which might easily happen in such an interview of *grandees*, both vehement on the parts which they swayed. *Wotton.*

The wreaths, his *grandsire* knew to reap
By active toil and military sweat. *Prior.*

Some parts of the Spanish monarchy are rather for ornament than strength: they furnish out vice-royalties for the *grandees*, and posts of honour for the noble families. *Addison.*

Oft my kind *grannam* told me, Tim, take warning.
Gay.

A voice has flown
To re-enflame a *grand* design. *Young.*

Grandfathers in private families are not much observed to have great influence on their *grandsons*, and, I believe, they have much less among princes.
Swift.

Our *grandchildren* will see a few rags hung up in Westminster-hall, which cost an hundred millions, whereof they are paying the arrears, and boast that their *grandfathers* were rich and great. *Id.*

So mimick ancient wits at best,
As apes our *grandsires* in their doublets drest.
Pope.

Sons, sires, and *grandsires*, all will wear the bays,
Our wives read Milton, and our daughters plays.
Id.

Blush *grandeur* blush! proud Courts! withdraw your blaze;
Ye little stars! hide your diminished rays. *Id.*

He that negotiates between God and man
As God's ambassador, the *grand* concerns
Of judgment and of mercy, should beware
Of lightness of his speech. *Cowper.*

Here dons, *grandees*, but chiefly dames abound,
Skilled in the ogle of a roguish eye,
Yet ever well inclined to heal the wound,
None through their cold disdain are doomed to die
As moon-struck bards complain by Love's sad archery.
Byron.

GRAND (Joachim le), a political writer, was born in 1653, at St. Lo, in Normandy. He entered into the congregation of the Oratory, which he quitted to become a tutor at Paris; after which he went to Portugal and Spain, as secretary to the French embassy. He had a controversy with bishop Burnet, respecting the divorce of Henry VIII. and his queen Catherine, on which subject he published three volumes. He died at Paris in 1733. Other works of his, are —1. A Translation of Lobo's History of Abyssinia. 2. De la Succession à la Couronne de France.

GRAND (John Baptist le), born at Amiens in 1737, was surnamed d'Aussy, because his father was a native of Auxy-de-Chateau, and educated at Amiens in the college of the Jesuits, of which he became a member, and was appointed professor of rhetoric at Caen. He was made secretary of the military school on the suppression of the society, and, in 1796, conservator of the manuscripts in the French national library. He died in 1801, and is known by his Fableaux, or Tales of the twelfth and thirteenth Centuries, 5 vols. 8vo. 2. Contes devots, Fables, et Romans anciens, pour servir de suite aux Fabliaux. 8vo. 3. Histoire de la vie privée des Français. 4. A Tour to Auvergne, 3 vols. 8vo. 5. Vie d'Apollonius de Tyanes, 2 vols. 8vo. At the time of his death, he was engaged on a History of French Poetry, which he left unfinished.

GRAND ISLE is an island of New York, in the Niagara, four miles above the Falls. It contains 48,000 acres, and belongs at present to the town of Buffalo.

Also the name of a county in the north-west part of Vermont. Population 4445. It is composed of islands in Lake Champlain; the largest are North and South Hero.

GRAND RIVER is a river of Louisiana, which runs south into the Missouri, 240 miles from the Mississippi. It is navigable for boats about 600 miles. Also a river of Louisiana, which runs south-east into the Arkansaw. It is navigable about 200 miles.

The GRAND TRAVERSE is a string or range of islands in Lake Michigan; mostly small and rocky. Many of the rocks are of an amazing size, and appear as if they had been fashioned by the hands of artists. On the largest and best stands a town of the Ottoways.

GRANDE, a river of Brasil, in the Bahia, which rises in the mountains to the westward of the valley of the Rio Francisco, and, running east, falls into that river in lat. 11° 35′ S.

GRANDE, a large river of Brasil, in the province of Minas Geraes, rising in the mountains to the westward, and falling, after a long course to the north-east, into the Atlantic in lat. 15° 26′ S,

GRANDE, a river of Zanguebar, Eastern Africa, supposed to be a branch of one great river, from which the Quilimane is also derived. At its mouth are several alluvial islands. It falls into the Indian Ocean, about lat. 2° S.

GRANDE, RIO, a large river of Western Africa, falling into the Atlantic, about 200 miles to the south of the Gambia. Its sources are little known, but are supposed to lie in a range of mountains extending inwards from Sierra Leone, and joining those of Kong. The kingdom of Foota Jallo lies along its right bank, and its shores are occupied by the various tribes of the Balantes, Biafaras, Papels, &c., and by the kingdoms of Ghinala and Biguba. Near the mouth it divides into various branches, forming alluvial islands, which form a portion of the archipelago of the Bissagos. Its whole course is about 500 miles direct.

GRANDIER (Urban), a curate and canon of Loudon in France, whose death has made him famous in the annals of superstition, was born at Bouvere near Sablé, in the latter part of the fifteenth century. He seems, as an eloquent and able preacher, to have been envied by the monks of Loudon, and, being accused of an improper attention to women, was condemned to forfeit his benefices. When an appeal to the parliament of Paris acquitted him, his enemies induced some nuns of Loudon to declare themselves bewitched by him, and persuaded cardinal Richelieu that he was the author of a satire upon his family and person. The issue was, that on the most absurd evidence, Grandier was declared guilty, and ordered to be burnt alive, a sentence which he endured with heroic firmness, on the 18th of April, 1684.

GRANGE, *n.s.* Fr. *grange*. A farm; generally a farm with a house at a distance from neighbours.

For he is wont for timber for to go,
And dwellen at the *grange* a day or two.
Chaucer. The Milleres Tale.

At the moated *grange* resides this dejected Mariana.
Shakspeare.

One, when he had got the inheritance of an unlucky old *grange*, would needs sell it; and, to draw buyers, proclaimed the virtues of it: nothing ever thrived on it, saith he; the trees were all blasted, the swine died of the measles, the cattle of the murrain, and the sheep of the rot; nothing was ever reared there, not a duckling nor a goose.
Ben Jonson.

The loose unlettered hinds,
When for their teeming flocks and *granges* full,
In wanton dance they praise the bounteous Pan.
Milton.

If the church was of their own foundation, they might chuse, the incumbent being once dead, whether they would put any other therein; unless, perhaps, the said church had people belonging to it; for then they must still maintain a curate; and of this sort were their *granges* and priories. *Ayliffe.*

GRANGE (Joseph de Chancel de la), a French poet, was born in 1676 in Perigord, and wrote his first comedy at nine years old, and a tragedy at sixteen. The work, however, which made him most known, was a satire, entitled Philippics, against the duke of Orleans. For this he was seized, and ordered to be imprisoned in the isle of St. Margaret, from whence he made his escape to Sardinia, and afterwards to Holland. He died in 1758. His works are in 5 vols. 12mo.

GRANGER (James), an English clergyman, and biographer, was a native of Berkshire, and educated at Christ Church, Oxford; soon after leaving which, he obtained the vicarage of Shiplake in Oxfordshire. Having made a collection of portraits of Englishmen, chronologically arranged, he published his Biographical History of England, 1769, 2 vols. 4to., in which the lists of engravings were accompanied by short memoirs and anecdotes, illustrative of their modes of dress, manners, &c., and the different periods of history concerned. He subsequently produced a supplementary volume; and in 1775 a second edition of the whole work. He died April 15th, 1776, in consequence of an apoplectic fit the preceding day, while administering the sacrament. A collection of his correspondence was published by James Peller Malcolm, 8vo., and a continuation of the Biographical History through the reigns of George I. and George II. by the Rev. Mark Noble.

GRANI, from Irish greann, a beard; in our ancient writers, mustaches or whiskers. The Roman Catholics give us a reason why the cup is refused to the laity, Quia barbati, et prolixos habent granos, dum poculum inter epulas sumunt, prius liquore pilos inficiunt, quam ori infundunt.

GRANICUS, a small river near the Hellespont in Lesser Asia, remarkable for the first victory gained by Alexander the Great over the armies of Darius. Justin and Orosius tell us, that the Persian army consisted of 600,000 foot and 20,000 horse; Arrian makes the foot amount to 200,000; but Diodorus tells us, that there were only 100,000 foot and 10,000 horse. The Macedonian army did not exceed 30,000 foot and 5000 horse. The Persian cavalry lined the banks of the Granicus, in order to oppose Alexander wherever he should attempt a passage; and the foot were posted behind the cavalry on an easy ascent. Parmenio wanted Alexander to allow his troops some time to refresh themselves; but he replied, that, after having crossed the Hellespont, it would be a disgrace to him and his troops to be stopped by a rivulet. Accordingly a proper place for crossing the river was no sooner found, than he commanded a strong detachment of horse to enter; he himself followed with the right wing, which he commanded in person; the trumpets in the mean time sounding, and loud shouts of joy being heard through the whole army. The Persians let fly such showers of arrows against the detachment of Macedonian horse, as caused some confusion; several of their horses being killed or wounded. As they drew near the bank, a most bloody engagement ensued; the Macedonians attempting to land, and the Persians pushing them back into the river. Alexander, who observed the confusion they were in, took the command of them himself; and landing, in spite of all opposition, obliged the Persian cavalry, after an obstinate resistance, to give ground. However, Spithrobates, governor of Ionia, and son-in-law to Darius, still maintained his ground, and did all that lay in his power to bring them back to the charge. Alexander advanced full gallop to engage him, and both were slightly wounded at the first encounter. Spithrobates having thrown his javelin without effect, advanced sword in hand to meet his antagonist, who ran him through with his pike as he raised his arm to discharge a blow with his scymitar. But Rosaces, brother to Spithrobates, at the same time, gave Alexander such a furious blow on the head with his battle-axe that he beat off his plume, and slightly wounded him through the helmet. As he was ready to repeat the blow, Clitus with one stroke of his scymitar cut off Rosaces's head, and thus in all probability saved the life of his sovereign. The Macedonians then, animated by the example of their king, attacked the Persians with new vigor, who soon after betook themselves to flight. Alexander immediately charged the enemy's foot with all his forces, who had now passed the river. The Persians, disheartened at the defeat of their cavalry, made no great resistance. The Greek mercenaries retired in good order to a neighbouring hill, whence they sent deputies to Alexander, desiring leave to march off unmolested. But he, instead of coming to a parley with them, rushed furiously into the middle of this small body; where his horse was killed under him, and he himself in great danger of being cut in pieces. The Greeks defended themselves with incredible valor for a long time, but were at last almost entirely cut off. In this battle the Persians are said to have lost 20,000 foot and 2500 horse, and the Macedonians only fifty-five foot and sixty horse.

GRANITE. See GRAIN.

GRANITE, in lithology, a genus of stones of the order of petræ, belonging to the class of saxa. The principal constituent parts of this stone are felt-spar or rhombic quartz, mica, and quartz. These ingredients constitute the hardest sort of granite, and that most anciently known. That into which schoerl enters is more subject to decomposition. They never have any particular texture or regular form, but consist of enormous shapeless masses extremely hard. In the finer granites the quartz is transparent; in others generally white or gray, violet or brown. The felt-spar is generally the most copious ingredient, and of a white, yellow, red, black, or brown color. The mica is also gray, brown, yellow, green, red, violet, or black; and commonly the least copious. The schoerl is generally black, and abounds in the granites that contain it. Hence the color of the granites depends principally on that of the spar or schoerl. The red granites consist commonly of white quartz, red felt-spar, and gray mica; the gray ones of white quartz, gray, or violet felt-spar, and black mica. The black granites commonly contain schoerl

instead of felt-spar; and the green usually contain green quartz. On exposing granite to the flame of a blow-pipe, the component ingredients separate from one another. Mr. Gerhard, having melted some in a crucible, found the felt-spar run into a transparent glass; below it the mica lay in form of a black flag, the quartz remaining unaltered. It melted somewhat better when all the three were powdered and mixed together; though even then the quartz was still discernible by a magnifying glass. Hence we may explain the reason why grains of a white color are sometimes found in volcanic lavas. The mixture of mica prevents the silex or quartz from splitting or cracking; and hence its infusibility and use in furnace-building. Granites are seldom slaty or laminated. In those of a close texture, the quartz and schoerl predominate. They take a good polish; for which reason the Egyptians formerly, and the Italians still, work them into large pieces of ornamental architecture, for which they are extremely fit, as not being liable to decay in the air. Wallerius describes eighteen species of granites, besides many others akin to this genus. Those described by Cronstedt are, 1. Loose or friable, which comes from France, and is used at the brass-works for casting that metal in. 2. Hard or compact, of which there are two varieties, red and gray. The former is met with of two kinds; viz. fine-grained, from Swappari in Lapland, or coarse-grained, from the province of Dalarne in Sweden. The gray, with other colors, is met with on the coast round Stockholm and Norland in Sweden. 'That granite may be produced,' says Kirwan, 'at this day, from the agglutination of its own sand, we have an evident proof in the mole constructed in the Oder in the year 1722; it is 350 feet in length, fifty-four in height, of that breadth at top, and 144 at bottom; the walls were made of blocks of granite, fastened with iron cramps, the chinks stopped with moss, and the space between the walls filled with granite sand; this sand, by the oozing of the water impregnated with iron, or other causes, is now at last rendered so hard and compact as to prevent any more water from traversing it, and cannot be distinguished from natural granite.' It is for this reason that granite is so much used in the improved roads round about London, which have been what is commonly called Macadamised. See Roads.

GRANITELLO, a genus of stones of the order of petræ, belonging to the class of saxa. There are two species: 1. That composed of distinct particles, found in several of the mountainous parts of Sweden. In some of these there is a predominance of quartzose particles, in others of micaceous; in which last case the stone is slaty, and easily split. 2. That composed of convoluted particles. It is met with of different colors, as whitish, gray, greenish, and reddish. Both these kinds of stone are used in building furnaces, on account of the powerful resistance they make to the fire; but the latter is preferable to the other, on account of its containing a little of a refractory clayish substance. It is likewise of great use in mills, where the fellow is a coarse sand-stone.

GRANI'VOROUS, *adj.* Lat. *granum* and *voro*. Eating grain; living upon grain.

Granivorous birds, as a crane, upon the first peck of their bills, can distinguish the qualities of hard bodies, which the sense of men discerns not without mastication. *Browne.*

Panick affords a soft demulcent nourishment, both for *granivorous* birds and mankind. *Arbuthnot.*

GRANT, *v. a.* & *n. s.* } From Fr. *garantir*,
GRANT'ABLE, *adj.* } Junius and Skinner;
GRANTEE', *n. s.* } perhaps, as Minsheu
GRANTOR', *n. s.* } thinks, from Lat. *gratuito*, or rather from
GRAN'TED, *part.* } *gratia* or *gratificor*. To admit that which is not yet proved; to allow; to yield; to concede. There are four meanings to this word, to give; to convey; to admit; to bestow something which cannot be claimed by right. A grantor is he by whom any grant is made: a grantee he to whom it is made. Grant, a gift; a boon; it has in law a special meaning; and is 'A gift in writing of such a thing as cannot aptly be passed or conveyed by word only; as rent, reversions, services, advowsons in gross, common in gross, tithes, &c., or made by such persons as cannot give but by deed, as the king, and all bodies politic; which differences be often in speech neglected, and then is taken generally for every gift whatsoever, made of any thing by any person; and he that granteth it is named the grantor, and he to whom it is made the grantee. A thing is said to be in grant, which cannot be assigned without deed.'

The God of Israel *grant* thee thy petition that thou hast asked of him. 1 *Sam.* xviii.

Then hath God also to the gentiles *granted* repentance unto life. *Acts* xiii. 18.

——— *Graunt* us ladie shene
Eche of us, of thy grace a bone.
Chaucer. House of Fame.

Madame! thus say sayid thei, we be
Folke that which he besechen the,
That thou *graunten* us, now, gode fame
And let our workes have gode name. *Id.*
This thing was *granted* and our other swore
With full glad herte.
Id. Prologue to Canterbury Tales.

All the land is the queen's, unless there be some *grant* of any part thereof, to be shewed from her majesty. *Spenser.*

They gather out of Scripture general rules to be followed in making laws; and so, in effect, they plainly *grant*, that we ourselves may lawfully make laws for the church. *Hooker.*

But of this so large a *grant*, we are content not to take advantage. *Id.*

Didst thou not kill this king?
—I *grant* ye. *Shakspeare.*

Suppose, which yet I *grant* not, thy desire
A moment elder than my rival fire,
Can chance of seeing first thy title prove?
Dryden.

This *grant* destroys all you have urged before. *Id.*

Courtiers justle for a *grant*,
And when they break their friendship plead their want. *Id.*

Grant that the fates have firmed, by their decree,
The Trojan race to reign in Italy. *Id. Æneid.*

To smooth the way for popery in Mary's time, the *grantees* were confirmed by the pope in the possession of the abbey-lands. *Swift.*

I take it for *granted*, that, though the Greek word which we translate saints, be in itself as applicable to things as persons, yet in this article it signifieth not holy things, but holy ones. *Pearson.*

If he be one indifferent as to the present rebellion, they may take it for *granted* his complaint is the rage of a disappointed man. *Addison's Freeholder.*

But *grant* that actions best discover man;
Take the most strong and sort them if you can.
Pope.

He heard, and *granted* half his prayer;
The rest the winds dispersed. *Id.*

A duplex querela shall not be *granted* under pain of suspension of the *grantor* from the execution of his office. *Ayliffe.*

The office of the bishop's chancellor was *grantable* for life. *Id.*

Not only the laws of this kingdom, but of other places, and the Roman laws, provide that the prince should not be deceived in his *grants*. *Davies.*

But though I *grant* him these excellencies, I must be pardoned, when I censure either his judgment or his virtue. *Beattie.*

Nor was thy respite *granted* to my prayer;
This fleeting grace was only to prepare
New torments for thy life, and my despair.
Byron. Childe Harold.

GRANT, in law. To every good grant, it is said, the following things are requisite: 1. That there be a person able to grant. 2. A person capable of the thing granted. 3. That there be a thing grantable. 4. That it be granted in such manner as the law requires. 5. That there be an agreement to, and acceptance of, the thing granted, by him to whom made. And, 6, There ought to be an attornment where needful.—Co. Lit. 73. But grants and conveyances are good without attornment of tenants, notice being given them of the grants, by stat. 4 Anne c. 16, § 9. Grants are taken most strongly against the grantor in favor of the grantee: the grantee himself is to take by the grant immediately, and not a stranger, or any in futuro; and if a grant be made to a man and his heirs, he may assign at his pleasure, though the word 'assigns' be not expressed.—Lat. 1, Saund. 322. The use of any thing being granted, all is granted necessary to enjoy such use: and in the grant of a thing, what is requisite for the obtaining thereof is included.—Co. Lit. 55. So that if timber trees are granted, the grantee may come upon the grantor's ground to cut and carry them away. See GIFTS.

GRANT OF THE KING. The king's grants are matters of public record: for the king's excellency is so high in the law, that no freehold may be given to, nor derived from, him, but by matter of record. To this end a variety of offices are erected, communicating in a regular subordination one with another, through which all the king's grants must pass, and be transcribed and enrolled; that the same may be inspected by his officers, who will inform him if any thing contained therein is improper, or unlawful to be granted. These grants, whether of lands, honors, liberties, franchises, or aught besides, are contained in charters or letters patent; that is open letters, literæ patentes: so called because they are not sealed up, but exposed to open view, with the great seal pendant at the bottom: and are usually directed or addressed by the king to all his subjects at large. And therein they differ from certain other letters of the king, sealed also with his great seal, but directed to particular persons and for particular purposes: which therefore, not being designed for public inspection, are closed up and sealed on the outside, and are thereupon called writs-close, literæ clausæ; and are recorded in the close-rolls, in the same manner as the others are in the patent rolls.—2 *Comm.* 346, c. 21.

GRANT (Francis), lord Cullen, an eminent lawyer and judge of Scotland, was born about 1660, and, having entered as an advocate, made a distinguished figure at the Revolution, by opposing the old lawyers, who warmly argued on the inability of the convention of estates to make any disposition of the crown. The abilities he showed in favor of the Revolution recommended him to an extensive practice; in which he acquired so much honor, that, when the union between the two kingdoms was in agitation, queen Anne, without application, created him a baronet, with a view of securing his interest in that measure; and soon after made him a lord of session. The same talents that recommended him to this honorable office, were conspicuous in the discharge of it; which he continued for twenty years with the highest reputation; when, after an illness which lasted but three days, he expired without agony on March 16th, 1726.

GRANT (Charles), an eminent and most benevolent East India proprietor and director, born in Scotland in 1746, was by the death of his father at the battle of Culloden left to the care of his uncle, who sent him out to India. Here he soon found patronage in the civil service, and in 1770 returned to Scotland and married. In 1772 he went out to Bengal as a writer, and was shortly after appointed secretary to the board of trade. In this situation he became the patron of various Christian missions, and in 1790, on his return to England, obtained a seat in the East India direction, and in the house of commons. He now wrote his important Observations on the State of Society among the Asiatic Subjects of Great Britain, which in 1813 the house of commons caused to be printed for the use of its members. Mr. Grant was also one of the commissioners appointed by parliament to superintend the building of new churches; a member of the Society for promoting Christian Knowledge; and a vice-president of the Bible Society. His death took place October 31st, 1825.

GRANTHAM, a borough and market town of Lincolnshire, on the road from London to York. It is supposed to have been a Roman station. It is governed by an alderman and twelve justices of the peace, a recorder, a coroner, an escheater, and twelve common-councillors. It has a fine large church with a stone spire, one of the loftiest in England, being 300 feet high; and which appears to lean to one side. Grantham has a good free school, where Sir Isaac Newton received his first education, besides two charity schools. It sends two members to Parliament, and is seated on the Witham, thirty miles south of Lincoln, and 110 north of London.

GRANVILLE (George), lord Lansdowne, was descended from the family of Rollo, the first

uke of Normandy. At eleven years of age he was sent to Trinity College, Cambridge, and at the age of thirteen admitted M. A., having, before he was twelve, spoken a poetical address of his own composition to the duchess of York, when she visited the University. In 1696 his comedy called the She Gallants was acted at the theatre royal in Lincoln's Inn-fields, as was his tragedy called Heroic Love in 1698. In 1702 he translated into English the second Olynthian of Demosthenes. He was M. P. for the county of Cornwall in 1710; afterwards secretary of war, comptroller of the household, then treasurer, and one of the privy council. In 1711 he was created baron Lansdowne. On the accession of king George I. in 1714 he was removed from his treasurer's place; and in 1715 entered his protest against the bills for attainting lord Bolingbroke and the duke of Ormond. He entered into the scheme for raising an insurrection in the west of England; and was committed to the Tower, where he continued two years. In 1719 he made a speech in the house of lords against the bill to prevent occasional conformity. In 1722 he withdrew to France, and continued abroad nearly ten years. At his return, in 1732, he published a fine edition of his Works in 2 vols. quarto. He died in 1735, leaving no male issue.

Granville, a considerable walled sea-port town on the coast of Normandy, in the department of La Manche. It stands on a peninsular rock, and has two suburbs. It has a considerable traffic with the neighbouring island of Jersey; and fisheries all along the coast. It sends out a number of vessels to Newfoundland. Population 5000. Twelve miles north-west of Avranches, and thirteen S.S.W. of Coutances.

Granville, a fertile country of North Carolina, in Hillsbury district, bounded on the south-east by Warren county, south by Wake, south-west and west by Orange, and north by Virginia. Williamsborough is the capital.

Granville, a post town of Washington county, New York, near which is a valuable marble quarry. It is twelve miles south-east of Whitehall, and sixty north-east of Albany. Population 3717.

GRAN'ULE, *n. s.* / Gran'ulous, *adj.* / Gran'ulary, *adj.* / Gran'ulate, *v. n.* & *v. a.* / Granula'tion, *n. s.* } Fr. *granuler, granulation*; Lat. *granum*. Small compact particles like grains. To granulate is to break into small masses or raise in small asperities; it is also a surgical term, descriptive of the process by which ulcers are healed, from the resemblance of their surfaces to clusters of small grains—these are named granulations. Granulation is also the act of pouring melted metal into cold water, that it may granulate or congeal into small grains: it is generally done through a colander, or a birchen broom. Gunpowder and some salts are likewise said to be granulated, from their resemblance to grain or seed. Granule is a small compact particle.

Small-coal, with sulphur and nitre, proportionably mixed, tempered, and formed into *granulary* bodies, to make up that powder which is used for guns.
Browne's Vulgar Errours.

With an excellent microscope, where the naked eye did see but a green powder, the assisted eye could discern particular *granules*, some blue, and some yellow. *Boyle on Colours.*

I have observed, in many birds, the gullet, before its entrance into the gizzard, to be much dilated, and thick-set, or, as it were, *granulated* with a multitude of glandules, each whereof was provided with its excretory vessel. *Ray.*

The juice of grapes, inspissated by heat, *granulates* into sugar. *Sprat.*

Tents in wounds, by resisting the growth of the little *granulations* of the flesh, in process of time harden them, and in that manner produce a fistula.
Sharp's Surgery.

Granulation, in chemistry, is an operation by which metallic substances are reduced into small roundish particles, to facilitate their combination with other substances. This operation consists only in pouring the melted metal slowly into a vessel filled with water, which is in the mean time to be agitated with a broom. With melted copper, however, which is apt to explode with great violence on the contact of water, some precautions are to be observed. In the brass works at Bristol, copper is granulated, without danger of explosion, by letting it fall in small drops into a large cistern of cold water covered with a brass plate. In the middle of the plate is an aperture in which is secured with Sturbridge clay a small vessel, whose capacity does not exceed a spoonful, perforated with many minute holes through which the copper passes. A stream of cold water passes through the cistern. If allowed to grow hot, the copper will fall to the bottom, and run into flat pieces instead of granulating. Lead or tin may be granulated by pouring them when melted into a box; the internal surface of which is rubbed with powdered chalk, and the box strongly shaken till the grains have become solid. Metals are granulated, because their ductility renders them incapable of being pounded, and because filing is long and tedious, and might render the metal impure by an admixture of iron from the file.

GRAPE, *n. s.* / Grape'stone, *n. s.* / Grape'-hyacinth, *n. s.* / Grape'-shot, *n. s.* } Fr. *grappe*; Italian *grappo, graspo*; Belg. *krappe*; Teut. *trauben*. The fruit of the vine, and the seed contained in the grape; a flower; shot of a peculiar kind used in battle.

And thou shalt not glean thy vineyard, neither shalt thou gather every *grape* of thy vineyard; thou shalt leave them for the poor and stranger.
Lev. xix. 10.

For no man, at the firste stroke,
Ne may not fel adoune an oke—
Nor of the reisins have the wine
Till *grapes* be ripe and wel afine.
Chaucer. Romaunt of the Rose.

And sometimes floures spring as in a mede,
Sometimes a vine and *grapes* white and rede.
Id, The Frankeleines Tale.

Nay in Death's hand the *grapestone* proves
As strong as thunder is in Jove's. *Cowley.*

Anacreon, for thy sake
I of the *grape* no mention make;
Ere my Anacreon by thee fell,
Cursed plant, I loved thee well. *Id.*

When obedient Nature knows his wil.,
A fly, a *grapestone*, or a hair can kill. *Prior.*

Here are the vines in early flower descried,
Here *grapes* discoloured on the sunny side. *Pope.*

Within a cable's length their vessels lay
Off Ismail, and commenced a cannonade
Which was returned with interest I may say,
And by a fire of musquetry and *grape*
And shells and shot of every size and shape.
Byron.

GRAPE. See VITIS.

GRAPE HYACYNTH. See HYACINTHUS.

GRAPE MANGROVE, GRAPE SEA-SIDE. Two species of polygonum.

GRAPE-SHOT, in artillery, is a combination of small shot, put into a thick canvas bag, and corded strongly together, so as to form a kind of cylinder, whose diameter is equal to that of the ball adapted to the cannon. The number of shot in a grape varies according to the service or size of the guns: in sea-service nine is always the number; but by land it is increased to any number or size, from an ounce and a quarter in weight to three or four pounds. In sea-service the bottoms and pins are made of iron, whereas those used by land are of wood.

The following statement exhibits the number and sorts of shot contained in the grape, for guns of different species:—

Guns.	Species of Shot in the Grape.	Number in each.	Number in each Box.
42 pounders .	4 lb.	9	4
32 ——— .	3	9	4
24 ——— .	—	9	6
18 ——— .	1½	9	8
12 ——— .	1	9	10
9 ——— .	13 oz.	9	12
6 ——— .	8	9	20
4 ——— .	6	9	20

GRAPH'ICAL, *adj.* } Greek γραφω, to de-
GRAPH'ICALLY, *adv.* } scribe. Well delineated: in a picturesque manner.

Write with a needle, or bodkin, or knife, or the like, when the fruit of trees are young; for, as they grow, so the letters will grow more large and *graphical.* *Bacon's Natural History.*

The hyena adorata, or civet-cat, is delivered, and *graphically* described by Castellus. *Browne.*

GRAPHOMETER, a mathematical instrument, otherwise called a semicircle; the use of which is to observe any angle whose vertex is at the centre of the instrument in any plane (though it is most commonly horizontal, or nearly so), and to find how many degrees it contains.

GRA'PNEL, *n. s.* Fr. *grapin.* A small anchor belonging to a little vessel. A grappling iron, with which in fight one ship fastens on another.

In goth the *grapenel* so full of crokes;
Among the ropes, ran the shering hokes.
Chaucer. Legende of good Women.

GRAPNELLS, or GRAPPLINGS, are fitted with four or five flukes or claws, and commonly used to ride a boat or other small vessel.

GRAP'PLE, *v. n., v. a.* & *n. s.* } Teut. *grabbe-*
GRAP'PLEMENT. } *len, grappen;* from Goth. *graff, kraff,* the hand.—Thomson. Ger. *krappeln,* to seize. To contend as wrestlers; to engage in close fight: an iron instrument by which one ship fastens on another.

As two wild boares together *grappling* go,
Chauſing and foming choler each against his fo.
Spenser's Faerie Queene.

They catching hold of him, as down he lent,
Him backward overthrew, and down him stayed
With their rude hands and griesly *grapplement.*
Spenser.

In the *grapple* I boarded them; on the instant they got clear of our ship, so I alone became their prisoner. *Shakspeare. Hamlet.*

Grapple your minds to sternage of the navy,
And leave your England as dead midnight still.
Shakspeare.

I'll in my standard bear the arms of York,
To *grapple* with the house of Lancaster. *Id.*

For Hippagines, vessels for the transporting of horse, we are indebted to the Saliminians; for *grappling* hooks to Anacharsis. *Heylin.*

They must be also practised in all the locks and gripes of wrestling, as need may often be in fight to tugg, or *grapple,* and to close. *Milton.*

As when earth's son, Antæus strove
With Jove's Alcides, and, oft foiled, still rose
Fresh from his fall, and fiercer *grapple* joined,
Throttled at length in the air, expired and fell.
Id.

Living virtue, all atchievements past,
Meets envy, still to *grapple* with at last.
Waller.

Sometimes, from fighting squadrons of each fleet,
Two *grappling* Ætnas on the ocean meet,
And English fires with Belgian flames contend.
Dryden.

Or did his genius
Know mine the stronger demon, feared the *grapple,*
And, looking round him, found this nook of fate,
To skulk behind my sword. *Id. Don Sebastian.*

Does he think that he can *grapple* with divine vengeance, and endure the everlasting burnings? *South.*

Antæus here and stern Alcides strive,
And both the *grappling* statues seem to live.
Addison.

Like one who *grapples* with his enemy
And strives to strangle him. *Byron.*

GRASP, *v. a., v. n.,* & *n. s.* } Teut. *graspen;*
GRASP'ER, *n. s.* } Ital. *graspare.* To hold; to seize; to catch; to struggle; figuratively to encroach or covet. The substantive signifies possession, or the power of seizing.

And hastily retourned into that place age,
And fond this blynd seching on hondes and on kne,
Grasping all aboute to find, that he had lore.
Chaucer. The Merchantes Second Tale.

See, his face is black, and full of blood;
His hands abroad displayed, as one that *grasps*
And tugged for life. *Shakspeare. Henry V.*

I would not be the villain that thou think'st
For the whole space that's in the tyrant's *grasp,*
And the rich East to boot. *Id. Macbeth.*

They looked upon it as their own, and had it even within their *grasp.* *Clarendon.*

This *grasping* of the militia of the kingdom into their own hands, was desired the summer before.
Id.

Within the direful *grasp*
Of savage hunger, or of savage heat.
Milton.

In his right hand
Grasping ten thousand thunders, which he sent
Before him, such as in their souls infixed
Plagues. *Milton's Paradise Lost.*

O fool that I am, that thought I could *grasp* water, and bind the wind. *Sydney.*

Doom, as they please, my empire not to stand,
I'll *grasp* my sceptre with my dying hand. *Dryden.*

Like a miser 'midst his store,
Who *grasps* and *grasps* till he can hold no more. *Id.*

This hand and sword hath been acquainted well;
It would have come before into my *grasp*,
To kill the ravisher. *Id. Don Sebastian.*

The left arm is a little defaced, though any one may see it held something in its *grasp* formerly. *Addison.*

Kings, by *grasping* more than they can hold,
First made their subjects, by oppression, bold. *Dennis.*

So endless and exorbitant are the desires of men, that they will *grasp* at all, and can form no scheme of perfect happiness with less. *Swift.*

For what are men who *grasp* at praise sublime,
But bubbles on the rapid stream of time? *Young.*

GRASS, *n. s.* & *v. n.*
GRASS'-PLOT, *n. s.*
GRASS'Y, *adj.*
GRAS'SINESS, *n. s.*
GRA'SIER, *n. s.*
GRASS'-HOPPER, *n. s.*
GRASS'-POLA, *n. s.*
GRAZE, *v. n.* & *v. a.*
GRA'ZER, *n. s.*
GRA'ZIER, *n. s.*

Sax. ɣræs; Swed. Goth., and Belg. *gras*; Teut. *grass*; à Greek αγρωστις(αγρος, a field.) —Minsheu. The common herbage of the field; a level covered with grass. Grasier and grazier, one who feeds cattle. Grass-hopper, a small insect that hops in the summer. Grass-pola, and grass of Parnassus, plants. Graze, to eat grass; to touch slightly over a surface; to feed.

Ye are grown fat as the heifer at *grass*, and bellow as bulls. *Jer.* l. 11.

———; but one within, wel might
Perceve all tho that yeden, there without,
Into the felde, that wos, on every side,
Covered with corn and *grass*, that, out of doubt,
Tho one would seken all the worlde wide,
So rich a field could not be espyde.
Chaucer. The Floure and the Leafe.

And as I could, this freshe floure I grette,
Kneling alwaie—till it unclosed was—
Upon the small, and soft, and swete *gras*
That wos with floures swete embrouded.
Id. Prologue to the Legende of Good Women.

Land arable, driven, or worn to the proof,
With oats ye may sow it, the sooner to *grass*,
More soon to be pasture, to bring it to pass.
Tusser.

Ne did he leave the mountains bare unseen,
Nor the rank *grassy* fens delights untryed.
Spenser.

And shrill *grasshoppers* chirped them round;
All which the ayrie echo did resound.
Id. Virgil's Gnat.

Mark then a bounding valour in our English,
That being dead, like to the bullets *grazing*,
Breaks out into a second course of mischief,
Killing in relapse of mortality.
Shakspeare. Henry V.

Her waggon spokes made of long spinners' legs,
The cover of the wings of *grasshoppers*. *Shakspeare.*

Here on this *grass-plot*, in this very place,
Come and sport. *Id. Tempest.*

The greatest of my pride is to see my ewes *graze*, and my lambs suck. *Id. As You Like It.*

Graze where you will, you shall not house with me. *Shakspeare.*

Jacob *grazed* his uncle Laban's sheep. *Id.*

As every state lay next to the other that was oppressed, so the fire perpetually *grazed*. *Bacon.*

All *graziers* prefer their cattle from meaner pastures to better. *Id.*

Physicians advise their patients to move into airs which are plain champaigns, but *grazing*, and not overgrown with heath. *Id.*

The sewers must be kept so as the water may not stay too long in the spring; for then the ground continueth the wet, whereby it will never *graze* to purpose that year. *Id.*

O happy man, saith he, that, lo! I see
Grazing his cattle in those pleasant fields,
If he but know his good! *Daniel's Civil War.*

Gentle peace, which filleth the husbandman's barns, the *grazier's* folds, and the tradesman's shop. *Howel.*

I was at first as other beasts, that *graze*
The trodden herb of abject thoughts and low. *Milton.*

Raised of *grassy* turf
Their table was, and mossy seats had round. *Id.*

The beef being young, and only *grass*-fed, was thin, light, and moist, and not of a substance to endure the salt. *Temple.*

The part of your garden next your house should be a parterre for flowers, or *grass-plots* bordered for flowers. *Id.*

Their steeds around,
Free from their harness, *graze* the flowery ground. *Dryden.*

Leaving in the fields his *grazing* cows,
He sought himself some hospitable house. *Id.*

The more ignoble throng
Attend their stately steps, and slowly *graze* along. *Id.*

This Neptune gave him, when he gave to keep
His scaly flocks that *graze* the watery deep. *Id.*

The most in fields, like herded beasts, lie down,
To dews obnoxious, on the *grassy* floor. *Id.*

Some *graze* their land till Christmas, and some longer. *Mortimer.*

A third sort of *grazing* ground is that near the sea, which is commonly very rich land. *Id.*

They are much valued by our modern planters to adorn their walks and *grass-plots*. *Id.*

His flock daily crops
Their verdant dinner from the mossy turf
Sufficient: after them the cackling goose,
Close *grazier*, finds wherewith to ease her want. *Philips*

There silver lakes with verdant shadows crowned,
Disperse a grateful chillness all around;
The *grasshopper* avoids the untainted air,
Nor in the midst of summer ventures there. *Addison.*

The women were of such an enormous stature, that we appeared as *grasshoppers* before them. *Id. Spectator.*

His confusion increased when he found the alderman's father to be a *grazier*. *Id.*

When the fresh Spring in all her state is crowned,
And high luxuriant *grass* o'erspreads the ground,
The lab'rer with bending scythe is seen
Shaving the surface of the weaving green. *Gay.*

The lambs with wolves shall *graze* the verdant mead. *Pope.*

He hath a house and barn in repair, and a field or two to *graze* his cows, with a garden and orchard. *Swift.*

But for a blooming nymph will pass,
Just fifteen, coming summer's *grass*. *Id.*

Grass, in botany, is defined to be a plant having simple leaves, a stem generally jointed and tubular, a husky calyx (called gluma), and the seed single. Hence wheat, oats, barley, &c., are properly grasses; while clover, and some other similar plants, are not grasses, though so frequently called by that name. Of grass the leaves are food for cattle, the small seeds for birds, and the larger grain chiefly for man. And it is observable that nature has so provided that cattle, in grazing, seldom eat the flower intended to produce seed, unless compelled by hunger.

Grasses, Culmiferous, may be divided into two general classes for the purposes of the farmer, to which it might be of use for him to attend, viz. 1. Those which, like the common annual kinds of corn, run chiefly to seed-stalks; the leaves gradually decaying as these advance towards perfection, and becoming totally withered or falling off entirely when the seeds are ripe. Rye-grass belongs to this class in the strictest sense. To it likewise may be assigned the vernal grass, dog's-tail-grass, and fine bent grass. 2. Those whose leaves continue to advance even after the seed-stalks are formed, and retain their verdure and succulence during the whole season, as is the case with the fescue and poa tribes of grasses, whose leaves are as green and succulent when the seeds are ripe, and the flower-stalks fading, as at any other time. 'It is wonderful,' Mr. Stillingfleet remarks, 'to see how long mankind has neglected to make a proper advantage of plants of such importance, and which, in almost every country, are the chief food of cattle. The farmer, for want of distinguishing and selecting grasses for seed, fills his pastures either with weeds, or bad or improper grasses; when, by making a right choice, after some trials, he might be sure of the best grass, and in the greatest abundance that his land would admit. At present, if a farmer wants to lay down his land to grass, what does he do? He either takes his seeds indiscriminately from his own foul hay-rick, or sends to his next neighbour for a supply. By these means, besides a certain mixture of all sorts of rubbish, which must necessarily happen, if he chance to have a large proportion of good seeds, it is not unlikely but that what he intends for dry land may come from moist, where it grew naturally, and the contrary. This is such a slovenly method of proceeding as, one would think, could not possibly prevail universally; yet this is the case as to all grasses except the darnel grass, and what is known in some few counties by the name of the Suffolk grass; and this latter is owing, I believe, more to the soil than any care of the husbandman. Now, would the farmer be at the pains of separating, once in his life, half a pint or a pint of the different kinds of grass seeds, and take care to sow them separately, in a very little time he would have wherewithal to stock his farm properly, according to the nature of the soil, and might at the same time spread these seeds separately over the nation, by supplying the seed-shops. The number of grasses fit for the farmer is, I believe, small; perhaps half a dozen or half a score are all he need to cultivate; and how small the trouble would be of such a task, and how great the benefit, must be obvious to every one at first sight. Would not any one be looked on as wild who should sow wheat, barley, oats, rye, peas, beans, vetches, buck-wheat, turnips, and weeds of all sorts together? yet how is it much less absurd to do what is equivalent in relation to grasses? Does it not import the farmer to have good hay and grass in plenty? and will cattle thrive equally on all sorts of food? We know the contrary. Horses will scarcely eat hay that will do well enough for oxen and cows. Sheep, says Linnæus, are particularly fond of one sort of grass, and fatten upon it faster than any other in Sweden. And may they not do the same in Britain? How shall we know till we have tried?' *Tracts relating to Natural History.*

1. *Annual meadow grass*, poa annua.—'This grass,' says Mr. Stillingfleet, 'makes the finest turf. It grows every where by way sides, and on rich sound commons. It is called in some parts the Suffolk grass. I have seen whole fields of it in High Suffolk, without any mixture of other grasses; and, as some of the best salt butter we have in London comes from that county, it is most likely to be the best grass for the dairy. I have seen a whole park in Suffolk covered with this grass; but whether it affords good venison I cannot tell, having never tasted of any from it. I should rather think not, and that the best pasture for sheep is also the best for deer. However this wants trial. I remarked on Malvern Hill something particular in relation to this grass. A walk that was made there, for the convenience of the water-drinkers, in less than a year was covered in many places with it, though I could not find one single plant of it besides in any part of the hill. This was no doubt owing to the frequent treading, which above all things makes this grass flourish; and therefore it is evident that rolling must be very serviceable to it. It has been objected that this grass is not free from bents, by which word is meant the flowering stems. I answer, that this is most certainly true, and that there is no grass without them. But the flowers and stems do not grow so soon brown as those of other grasses; and, being much shorter, they do not cover the radical leaves so much; and therefore this grass affords a more agreeable turf without mowing than any other whatever that I know of.' The seeds of this species drop off before they are dry, and, to appearance, before they are ripe. The utmost care is therefore necessary in gathering the blades, without which very few of the seeds will be saved. It ripens from the middle of April to so late, it is believed, as the end of October; but mostly disappears in the middle of the summer. It grows in any soil and situation, but rather affects the shade.

2. *Bulbous fox-tail grass*, alopecurus bulbosus, is recommended by Dr. Anderson, in his Essay on Agriculture, &c., as promising on some occasions to afford a valuable pasture grass. 'It seems chiefly,' he observes, 'to delight in a moist soil, and therefore promises to be only fit for a meadow pasture grass.' The quality that first recommended it to his notice was, the unusual firmness that its matted roots gave to the surface of the ground, naturally soft and moist,

in which it grew; which seemed to promise that it might be of use upon such soils, chiefly in preventing them from being much poached by the feet of cattle which might pasture upon them. Mossy soils, especially, are so much hurt by poaching that any thing which promises to be of use in preventing it deserves to be attended to.

3. *Cock's tail, or feather-grass*, stipa pennata. See STIPA.

4. *Creeping meadow grass*, poa compressa, according to Dr. Anderson, seems to be the most valuable grass of any of this genus. Its leaves are firm and succulent, of a dark Saxon-green color, and grow so close upon one another as to form the richest pile of pasture-grass. The flower-stalks, if suffered to grow, appear in sufficient quantities; but the growth of these does not prevent the growth of the leaves, both advancing together during the whole summer; and, when the stalks fade, the leaves continue as green as before. Its leaves are much larger and more abundant than the common meadow-grass, poa trivialis; and therefore it better deserves to be cultivated.

5. *Creeping soft grass*, holcus lunatus. See HOLCUS.

6. *Crested dog's-tail grass*, cynosurus cristatus. Mr. Stillingfleet imagines this grass to be proper for parks, from his having known one, where it abounds, that is famous for excellent venison. He recommends it also, from experience, as good for sheep; the best mutton he ever tasted, next to that which comes from hills where the purple and sheep's fescue, the fine bent, and the silver-hair grasses abound, having been from sheep fed with it. He adds, that it makes a very fine turf upon dry sandy or chalky soils; but, unless swept over with the scythe, its flowering stems will look brown; which is the case of all grasses which are not fed on by a variety of animals. For that some animals will eat the flowering stems is evident by commons, where scarcely any parts of grasses appear but the radical leaves. This grass is said to be the easiest of the whole group to collect a quantity of seeds from. It flowers in June, and is ripe in July.

7. *Fine bent grass*, agrostis capillaris, is recommended by Mr. Stillingfleet, from his having always found it in great plenty on the best sheep pastures, in the different counties of England that are remarkable for good mutton. This grass flowers and ripens its seed the latest of them all. It seems to be lost the former part of the year, but vegetates luxuriantly towards the autumn. It appears to be fond of moist ground. It retains its seed till full ripe, flowers the latter end of July, and is ripe the latter end of August. The same may be said of the mountain and silver-hair grasses.

8. *Flote, or floating fescue grass*, festuca fluitans. See FESTUCA. It is surprising that the seeds of this plant, which are used as nutritious food in Sweden, Germany, &c., have hitherto been neglected in Britain, as they are so easily collected and cleansed. There is a clamminess on the ear of the flote fescue, when the seeds are ripe, that tastes like honey; and for this reason perhaps they are called manna seeds. Linnæus, in his Flora Suecica (art. 95) says, that the bran of this grass will cure horses troubled with botts, if kept from drinking for some hours. Concerning this grass we have the following information by Mr. Stillingfleet. Mr. Dean, a very sensible farmer at Ruscomb, Berkshire, assured me that a field, always lying under water, of about four acres, was covered with a kind of grass, that maintained five farm horses in good heart from April to the end of harvest, without giving them any other kind of food, and that it yielded more than they could eat. He, at my desire, brought me some of the grass, which proved to be the flote fescue with a mixture of the marsh bent; whether this last contributes much towards furnishing so good pasture for horses, I cannot say. They both throw out roots at the joints of the stalks, and therefore are likely to grow to a great length. In the index of dubious plants, at the end of Ray's synopsis, there is mention made of a grass, under the name of gramen caninum supinum longissimum, growing not far from Salisbury, twenty-four feet long. This must by its length be a grass with a creeping stalk; and that there is a grass in Wiltshire, growing in watery meadows, so valuable that an acre of it lets from £10 to £12, I have been informed by several persons. These circumstances incline me to think it must be the flote fescue; but, whatever grass it be, it certainly must deserve to be enquired after.'

9. *Great meadow grass*, poa pratensis, seems to approach in many respects to the nature of the purple fescue; only that its leaves are broader, and not near so long; being only about a foot or sixteen inches at their greatest length. Like it, it produces few seed-stalks and many leaves, and is an abiding plant. It affects chiefly the dry parts of meadows, though it is to be found on most good pastures. It is very retentive of its seeds, and may therefore be suffered to remain till the stalks are quite dry. It blossoms in the beginning of June, and its seeds are ripe in July.

10. *Meadow fox-tail grass*, alopecurus pratensis. Linnæus says, this is a proper grass to sow on grounds that have been drained. Mr. Stillingfleet was informed, that the best hay which comes to London is from the meadows where this grass abounds. It is scarce in many parts of England, particularly Herefordshire, Berkshire, and Norfolk. It might be gathered at almost any time of the year from hay ricks, as it does not shed its seeds without rubbing, which is the case of but few grasses. It is amongst the most grateful of all grasses to cattle. It is ripe about the end of June.

11. *Mountain hair grass*, aira flexuosa. See No. 7, and AIRA.

12. *New American grass*. A new grass from America, named agrossis cornucopiæ, was some time ago much advertised and extolled, as possessing the most wonderful qualities, and the seeds of it were sold at the enormous rate of £68 the bushel. But we have not heard that it has at all answered expectation. On the contrary, Dr. Anderson, in his Bee (vol. i. p. 38) says, that it has upon trial been found to be good for nothing. Of the seeds sown, few even germinated: but enow of plants made their ap-

pearance, to ascertain that the grass, in respect of quality, is among the poorest of the tribe; and that it is an annual plant, and altogether unprofitable to the farmer.

13. *Purple fescue grass*, festuca rubra. See Festuca.

14. *Rye grass*, hordeum murinum. Rye grass is properly the secale villosum. Perennial darnel, lollium perenne, is also, in some counties of England, improperly called rye grass.

15. *Silver-hair grass*, aira caryophyllea. See No. 7, and Aira.

16. *Sheep's fescue grass*, festuca ovina. See Festuca. This is perhaps the most valuable grass of all. It is observed to grow and thrive in lands of all qualities and in all situations, from they dryest up-land pastures to the very moist part of meadows. It does not part with its seeds till some time after they are ripe, and even quite dry. It makes the thickest and closest pile of any of them, and sends up but few flower-stalks in proportion to its leaves It flowers in June, and is ripe in July.

17. *Vernal grass*, anthoxanthum odoratum, grows very commonly on dry hills, and likewise on sound rich meadow land. It is one of the earliest grasses we have; and from its being found on such kinds of pastures as sheep are fond of, and whence excellent mutton comes, it is most likely to be a good grass for sheep pastures. It gives a grateful odor to hay. In one respect it is very easy to gather, as it sheds its seeds upon the least rubbing. A correspondent of the Bath Society, however, mentions a difficulty that occurs in collecting them, owing to its being surrounded with taller grasses at the time of its ripening, and being almost hid amongst them. If it be not carefully watched when nearly ripe, he observes, and gathered within a few days after it comes to maturity, great part of the seed will be lost. The twisted elastic awns, which adhere to the seed, lift them out of their receptacles with the least motion from the wind, even while the straw and ear remain quite erect. It is found mostly in the moist parts of meadows; very little of it on dry pastures. It flowers about the beginning of May, and is ripe about the middle of June.

Grass of Parnassus, parnassa, Latin. A plant. This plant is called parnassa, from Mount Parnassus, where it was supposed to grow; and, because the cattle feed on it, it obtained the name of grass, though the plant has no resemblance to the grass kind.

Grass, Orcheston. See Orcheston.

Grass Vetch. See Lathyrus and Tritium.

Grass Walks are made, for the most part, not by sowing grass seeds, but by laying turfs: and indeed the turfs from a fine common or down are much preferable to sown grass: but, if walks or plats are to be made by sowing, the best way is to procure the seed from those pastures where the grass is naturally fine and clear; or else the trouble of keeping it from spiry or benty grass will be very great, and it will scarcely ever look handsome. To sow grass walks, the ground must be first dug; and, when it has been dressed and laid even, it must be carefully raked over, and all the clods and stones taken off, and then covered over an inch thick with good mould. The seed is to be sown pretty thick, that it may come up close and short; it must then be raked over again, to cover the seed, that if the weather should be windy, it may not be blown away. Where grass is sown in gardens, either for lawns or walks, there should always be a good quantity of the white trefoil or Dutch clover sown with it; for this will make a fine turf much sooner than any other sown grass, and will retain a better verdure than any other of the grass tribe. To keep grass walks handsome, and in good order, sow in autumn fresh seed over any places that are not well filled, or where the grass is dead: but nothing improves grass so much as mowing and constant rolling. When turf is laid in gardens, it is a general practice to cover the surface of the ground under the turf, either with sand or very poor earth, in order to keep the grass fine, by preventing its growing too rank. This is proper for very rich ground, but not for middling or poor land; for, when this is practised in such places, the grass will soon wear out and decay in patches. When turf is taken from a common or down, such ought to be chosen as is free from weeds: and, when it is designed to remain for years without renewing, a dressing should be laid upon it every other year, either of very rotten dung, ashes, or, where it can easily be procured, rotten tan; but these dressings should be laid on early in the winter, that the rain may wash them into the ground, otherwise they occasion the grass to burn when the warmth of the summer begins. When grass is thus dressed, and well rolled and mowed, it may be kept very beautiful for many years; but where it is not dressed, or fed with sheep, it will rarely continue handsome more than eight or ten years.

Grass Wrack. See Zostera.

Grass, a river of the state of New York, North America, which enters the St. Lawrence near St. Reges Island. It has a course of 120 miles through St. Lawrence county.

GRASSE, a well-built town of the department of the Var, France, standing in a natural amphitheatre surrounded with orangeries, and flower gardens, particularly those devoted to the culture of roses. Vines and olives also add to the attractions of its charming scenery. It is a good trading town in wine, liquors, silk, leather, and soap. Population 12,500. It is nine miles W.N.W. of Antibes, and nineteen W.S.W. of Nice.

GRASSMERE Water, a beautiful lake in Westmoreland, near Ambleside and Rydal. Its banks are formed into small bays, by bold projecting eminences, some of rock and some of turf.

GRATAROLUS (William), a learned physician of the sixteenth century, born at Bergamo in Italy. He taught medicine with reputation at Padua; but, having embraced the Protestant religion, he retired to Switzerland, where he was made professor of physic. He died at Basil in 1568, aged fifty-two. He wrote several curious works in Latin; amongst which are, 1. The Manner of Preserving and Improving the Me-

mery. 2. Of Preserving in Health Travellers, Men of Letters, Magistrates, and Studious Persons, &c.

GRATE, *v. a.* & *v. n.* } Fr. *gratter*; old Fr. *grater*; Ital. *grattare*, of Lat. *rado*, to chafe.
GRA'TER, *n. s.* }
GRA'TINGLY, *adv.* }

To rub or wear by attrition; to form a sound by means of grating hard bodies together; figuratively to offend the ear by harsh and discordant notes. Grater, a coarse file with which soft bodies are pulverised.

The pure fetters on his shinnes *grete*.
Chaucer. The Knightes Tale.

Thereat enraged, soon he 'gan upstart,
Grinding his teeth, and *grating* his great heart.
Spenser.

Thereat the fiend his gnashing teeth did *grate*.
Id.

We are not so nice as to cast away a sharp knife, because the edge of it may sometimes *grate*.
Hooker.

Blind oblivion swallowed cities up,
And mighty states characterless are *grated*.
To dusty nothing.
Shakspeare. Troilus and Cressida.

Wherein have you been galled by the king?
What peer hath been suborned to *grate* on you,
That you should seal this lawless bloody book
Of forged rebellion with a seal divine?
Shakspeare.

The *grating* stock of wrathful iron arms. *Id.*

I have *grated* upon my good friends for three reprieves for you, or else you had looked through the grates. *Id.*

On a sudden open fly
With impetuous recoil, and jarring sound,
The infernal doors, and on their hinges *grate*
Harsh thunder, that the lowest bottom shook
Of Erebus. *Milton's Paradise Lost.*

Just resentment and hard usage coined
The unwilling word, and *grating* as it is,
Take it for 'tis thy due. *Dryden's Don Sebastian.*

Paradoxing is of great use; but the faculty must be so tenderly managed as not to *grate* upon the truth and reason of things. *L'Estrange.*

I never heard him make the least complaint, in a case that would have *grated* sorely on some men's patience, and have filled their lives with discontent.
Locke.

This *grated* harder upon the hearts of men.
South.

If the particles of the putty were not made to stick fast in the pitch, they would, by rolling up and down, *grate* and fret the object metal, and fill it full of little holes. *Newton's Opticks.*

This habit of writing and discoursing, wherein I unfortunately differ from almost the whole kingdom, and am apt to *grate* the ears of more than I could wish, was acquired during my apprenticeship in London. *Swift.*

They have been partial in the gospel, culled and chosen out those softer and more gentle dictates which would less *grate* and disturb them.
Decay of Picty.

Tender handed touch a nettle,
And it stings you for your pains,
Grasp it like a man of mettle,
And it soft as silk remains.
So it is with common natures,
Treat them gently, they rebel,
But be rough as nutmeg-*graters*,
And the rogues obey you well. *A. Hill.*

GRATE, *n. s.* Ital. *grata*, Lat. *crates*. A partition made with bars placed near to one another, or crossing each other, such as in cloysters or prisons; the range of bars within which fires are made.

And so befell, by aventure or cas,
That thurgh a window thikke of many a barre
Of yren *gret*, and square as any spane,
He cast his eyen upon Emilia.
Chaucer. The Knightes Tale.

I have grated upon my good friends for three reprieves for you, and your couch fellow, Nim: or else you had looked through the *grates*, like a geminy of baboons. *Shakspeare.*

Out of a little *grate* his eyes he cast
Upon those bordering hills, and open plain.
Daniel.

A fan has on it a nunnery of lively black-eyed vestals, who are endeavoring to creep out at the *grates*.
Addison.

My dear is of opinion that an old-fashioned *grate* consumes coals, but gives no heat. *Id. Spectator.*

GRATES FOR FIRES are composed of ribs of iron placed at small distances from one another, so that the air may have sufficient access to the fuel, and the accumulation of the ashes, which would choke the fire, may be prevented. Grates seem peculiarly adapted to the use of pit-coal, which requires a greater quantity of air to make it burn more freely than other kinds of fuel. The hearths of the Britons seem to have been fixed in the centre of their halls, as is yet practised in some parts of Scotland, where the fire is nearly in the middle of the house, and the family sit all around it. Their fire-place was perhaps nothing more than a large stone, depressed a little below the level of the ground, and thereby adapted to receive the ashes. About a century ago, it was only the floor of the room, with the addition of a bank of clay. But it was now changed among the gentlemen for a portable fire pan, raised upon low supporters, and fitted with a circular grating of bars. Such were in use among the Gauls in the first century, and among the Welsh in the tenth. See FIRE-PLACES.

GRATE'FUL, *adj.* }
GRATE'FULLY, *adv.* }
GRATE'FULNESS, *n. s.* }
GRATIFICA'TION, *n. s.* }
GRAT'IFY, *v. a.* }
GRA'TIS, *adj.* }
GRAT'ITUDE, *n. s.* }
GRATU'ITOUS, *adj.* }
GRATU'ITY, *n. s.* }
GRATU'ITOUSLY, *adv.* }
GRAT'ULATE, *v. a.* }
GRATULA'TION, *n. s.* }
GRAT'ULATORY, *adj.* }

Fr. *gratuit*; Lat. *gratus, gratificor, gratulor, gratuitus.* Gratefulness implies a due sense and estimation of favors received: the quality of being acceptable and pleasing. To gratify is to afford indulgence or pleasure. A gratuitous act is voluntary as opposed to compulsion. A gratuity, a free gift. To gratulate is to salute with expressions of joy.

They are the first *gratulations* wherewith our Lord and Saviour was joyfully received at his entrance into the world, by such as in their hearts, arms, and bowels embraced him. *Hooker.*

Forbid
That our renowned Rome, whose *gratitude*
Tow'rds her deserving children is enrolled,
Should now eat up her own! *Shakspeare.*
The people cry you mock them; and, of late,
When corn was given them *gratis*, you repined.
Id.

They sold themselves, but thou, like a kind fellow, gav'st thyself away *gratis*, and I thank thee for thee. *Shakspeare.*

To gratify the good Andronicus,
And *gratulate* his safe return to Rome,
The people will accept whom he admires. *Id.*

Whither away so fast?
— No farther than the tower,
To *gratulate* the gentle princes there. *Id.*

Whatsoever is ingrate at first, is made *grateful* by custom; but whatsoever is too pleasing at first, groweth quickly to satiate. *Bacon.*

Yet give thy jealous subjects leave to doubt,
Who this thy 'scape from rumour *gratulate*,
No less than if from peril; and devout,
Do beg thy care unto thy after state. *Ben Jonson.*

Blessings beforehand, ties of *gratefulness*,
The sound of glory ringing in our ears. *Herbert.*

A man will endure the pain of hunger and thirst, and refuse such meats and drinks as are most *grateful* to his appetite, if he be persuaded that they will endanger his health. *Wilkins.*

The debt immense of endless *gratitude*. *Milton.*

The earth
Gave signs of *gratulation*, and each hill. *Id.*

He as new waked, thus *gratefully* replyed. *Id.*

A *grateful* mind
By owing owes not, but still pays. *Id.*

Now night her course began, and over Heaven
Inducing darkness, *grateful* truce imposed
Her silence on the odious din of war;
Under her cloudy covert both retired,
Victor and vanquished. *Id. Paradise Lost.*

This place is the more *grateful* to strangers, in respect that it being a frontier town, and bordering upon divers nations, many languages are understood here. *Browne's Travels.*

A Laconian knight having sometime served him with more *gratefulness* than good courage defended him. *Sidney.*

The taking of use, though he judged lawful, yet never approved by practice, but lent still *gratis* both to friends and strangers. *Fell.*

You steer between the country and the court,
Nor *gratify* whate'er the great desire,
Nor grudging give what publick needs require. *Dryden.*

Years of service past,
From *grateful* souls exact reward at last. *Id.*

Since nature could behold so dire a crime,
I *gratulate* at least my native clime,
That such a land, which such a monster bore,
So far is distant from our Thracian shore. *Id.*

Enough remains for household charge beside,
His wife and tender children to sustain,
And *gratefully* to feed his dumb deserving train. *Id. Virgil.*

But pride stood ready to prevent the blow;
For who would die to *gratify* a foe? *Id. Fables.*

Kindred are no welcome clients, where relation gives them a title to have advice *gratis*. *L'Estrange.*

We mistake the *gratuitous* blessings of heaven for the fruits of our own industry. *Id.*

The second motive they had to introduce this *gratuitous* declination of atoms, the same poet gives us. *Ray.*

A palled appetite is humorous, and must be *gratified* with sauces rather than food. *Tatler.*

A thousand little impertinences are very *gratifying* to curiosity, though not improving to the understanding. *Addison.*

They are incapable of any design above the present *gratification* of their palates. *South.*

The captive generals to his car are tied;
The joyful citizens tumultuous tide
Echoing his glory, *gratify* his pride. *Prior.*

'Tis not the rural sports alone invite,
But all the *grateful* country breathes delight;
Here blooming Health exerts her gentle reign,
And strings the sinews of th' industrious swain. *Gay.*

What happiness the rural maid attends
In cheerful labour while each day she spends;
She *gratefully* receives what Heaven has sent,
And rich in poverty enjoys content. *Id.*

I scorned to take my degree at Utrecht or Leyden, though offered it *gratis* by those universities. *Arbuthnot.*

In Cyprus long by men and gods obeyed,
The lovers toil she *gratefully* repaid. *Granville.*

I would know whence came this obliquity of direction, which they *gratuitously* tack to matter: this is to ascribe will and choice to these particles. *Cheyne's Philosophical Principles.*

He used every year to present us with his almanack, upon the score of some little *gratuity* we gave him. *Swift.*

From loveless youth to unrespected age,
No passions *gratified* except her rage;
So much the fury still out-ran the wit,
The pleasure missed her, and the scandal hit. *Pope.*

Now golden fruits on loaded branches shine,
And *grateful* clusters swell with floods of wine. *Id.*

At once they *gratify* their scent and taste,
While frequent cups prolong the rich repast. *Id.*

They might have pretended to comply with Ulysses, and dismissed him with a small *gratuity*. *Broome on the Odyssey.*

Study detains the mind by the perpetual occurrence of something new, which may *gratefully* strike the imagination. *Watts.*

Suspicious thoughts his pensive mind employ,
A sullen *gratitude*, and clouded joy. *Harte.*

The bright tear starting in the impassioned eyes
Of silent *gratitude*; the smiling gaze
Of *gratulation*, faltering while he tries
With voice of transport to proclaim thy praise. *Beattie's Judgment of Paris.*

I saw thee—loved thee—owe thee all—would save,
If but to shew how *grateful* is a slave. *Byron. Corsair.*

GRATITUDE, in ethics, is a virtue disposing the mind to an inward sense and outward acknowledgment of benefits received. Examples of ingratitude, Paley observes, check and discourage voluntary beneficence; hence the cultivation of a grateful temper is a consideration of public importance. A second reason for cultivating in ourselves that temper is, That the same principle which is touched with the kindness of a human benefactor is capable of being affected by the divine goodness, and of becoming, under the influence of that affection, a source of the purest and most exalted virtue. The love of God is the sublimest gratitude. It is a mistake, therefore, to imagine, that this virtue is omitted in the Scriptures; for every precept which commands us 'to love God, because he first loved us,' presupposes the principle of gratitude, and directs it to its proper object.

GRATIAN, the son of Valentinian I. by his first wife, was associated in the empire by his father, at Amiens, in 365, and succeeded him in 367; a prince equally extolled for his eloquence and modesty. He associated Theodosius with him in the empire, and advanced the poet Ausonius to the consulate. He made a great slaughter of the Germans at Strasburg, and hence was surnamed Alemannicus. He was the first emperor who refused the title of Pontifex Maximus, on account of its being a Pagan dignity. He was assassinated by Andragathius in 375, in the twenty-fourth year of his age.

GRATIAN, a British soldier in the Roman army, who was crowned emperor by the legions in Britain, about A.D. 407, but was murdered by them within four months.

GRATIAN, a famous Benedictine monk, in the twelfth century, born at Chiousi. He was employed nearly twenty-four years in composing a work, entitled Decretum, or Concordantia Discordantium Canonum, because he there endeavoured to reconcile the canons which seemed contradictory to each other. This work was published in 1151. As he is frequently mistaken, in taking one canon of one council, or one passage of one father, for another, and has often cited false decretals, several authors have endeavoured to correct his faults; and chiefly Anthony Augustine, in his excellent work entitled De Emendatione Gratiani.

GRATINGS, in a ship, are small edges of sawed plank, framed one into another like a lattice or prison grate, lying on the upper deck, between the main-mast and fore-mast, serving for a defence in a close fight, and also for the coolness, light, and convenience of the ship's company.

GRATIOLA, hedge hyssop, a genus of the monogynia order, and driandria class of plants; natural order fortieth, personatæ: COR. is irregular: there are two barren stamina: CAPS. is bilocular: CAL. seven leaves, with the two exterior ones patulous. There are fifteen species; the most remarkable of which, the G. officinalis, the common hedge hyssop, grows naturally on the Alps, and other mountainous parts of Europe. It has a thick, fleshy, fibrous creeping root, which propagates very much, when planted in a proper soil and situation. From this arise several upright square stalks, garnished with narrow spear-shaped leaves, placed opposite. The flowers are produced on the side of the stalks at each joint: they are shaped like those of the fox-glove, but are small, and of a pale yellowish color. This herb has an emetic and purgative virtue; to answer which intentions, it was formerly used by the common people in England, but was never much prescribed by the physicians, and at last fell totally into disuse. It is the subject of a dissertation by Dr. James Kostrzewski of Warsaw, in Poland; who gives some remarkable accounts of its effects in mania and obstinate venereal cases. It was given in powder, or in extract, to the quantity of half a drachm of the first, and a whole drachm of the second, at each dose.

GRATIOSA, a beautiful and fertile island of the Azore cluster, about twenty miles in circumference. The chief town is Santa Cruz, where, however, there is no harbour, but only an open roadstead. Long. 27° 56′ W., lat. 39° 2′ N.

GRATIOSA, a small rocky and barren island, situated to the north of Lanzerota, one of the Canaries. Long. 13° 17′ W., lat. 29° 15′ N.

GRATTAN (Henry), a celebrated Irish statesman, was born about 1750, in Dublin, of which city his father was recorder. Having studied at Trinity College, Dublin, and in one of the inns of court, he was called to the bar; but, being elected into the Irish parliament in 1775, gave himself up to public business, and, by his powerful remonstrances, obtained for his country the concessions of 1782, for which he was rewarded by the Irish parliament with a vote of £50,000. In 1790 he was returned for the city of Dublin, principally to oppose the union; but when it was effected he accepted a seat in the imperial parliament for Malton. He now supported the war policy of the government, but his principal exertions were called forth in advocating the Catholic claims, to which cause indeed he fell a martyr by leaving Ireland in an exhausted state to bring their petition to England. He died soon after his arrival, May 14th 1820, and was interred in Westminster Abbey.

GRATZ, a respectable old town, the capital of one of the five circles of Styria, situated on the Muhr. The ancient part is small, enclosed by a wall and ditch. The citadel stands on a very steep hill on the banks of the river, and the town has been gradually accumulated round it. Since 1787 it has been the see of a bishop, and was the seat of a university from 1585 to 1782; but the place of that seminary is now supplied by a lyceum, or academy, and a large school. The houses in general are of stone, and it has twenty-two churches and chapels, including the cathedral, once the parish church. The emperor Ferdinand II., who was a native of Gratz, has a mausoleum here, remarkable for its internal ornamental sculpture. Here is also a library said to contain from 3000 to 4000 MSS., besides the theatre and barracks, which are said to be entitled to attention; as is also the Johanneum, a museum for the antiquities of Styria. Gratz contains manufactures of hardware, saltpetre, cotton, and silk. The environs are very fertile, the hills being covered with plantations and vineyards, intermingled with villages and detached cottages. It is fifty-six miles N. N. E. of Cilley, and 100 south-west of Vienna.

GRATZ, one of the circles of the duchy of Styria, comprises the northern part of Lower Styria, lying on both sides of the Muhr, and has an area of 2100 square miles. The surface is hilly, but there are few high mountains; and the valleys are fertile and picturesque, particularly between Gratz and Bruck. The pasturage is the chief agricultural object of attention, and the cattle, milk, butter, and cheese, are in repute. The steep grounds of the hills contain large forests of pine, but the chief riches of this circle, as of Styria in general, arise from its mines, and the manufactures connected with them. It contains a large number of villages. Population 300,000.

GRAUDENTZ, or GRUDZIADZ, a town of West Prussia, at the confluence of the Ossa and Vistula. It conducts manufactures of cloth and extensive breweries, with some trade in corn and tobacco. The inhabitants are chiefly German Lutherans, but the Catholics have a church and a public school. Near this place a strong fort was erected on the bank of the Vistula in 1776, and in 1798 a bridge of boats was laid across that river. It is fourteen miles N. N. E. of Culm, and fifty-five south of Dantzic. Population 6700.

GRAVE, *n. s.* & *adj.* GRAVE'-CLOTHES, *n. s.* GRAVE'-STONE, *n. s.* GRAVE'LESS, *adj.* GRAVE'LY, *adv.* GRAVE'NESS, *n. s.* GRAV'ITY, *n. s.* GRAVID'ITY, *n. s.* GRAV'ITATE, *v. n.* GRAVITA'TION, *n. s.* GRAVE'OLENT, *adj.* Sax. ȝræf; Goth. *grauf, grav*; Belg. and Swed. *graf*; Fr. *grave, gravité*; Latin *gravis, graveolens, gravidus, gravitas*. The place in which the dead are deposited; the dress of the dead; the monumental stone: solemn; serious; weighty; atrocious: tendency to centre of attraction. Gravidity is a word used to denote a state of pregnancy. Graveless, without a grave; unburied. Grave, a final syllable in the names of places, is from the Saxon ȝræf, a grove or cave.—*Gibson's Camden.*

Sche goith to the *graue*, to wepe there.
Wiclif. Jon. xi.

And he that was dead came forth, bound hand and foot with *grave-cloaths*. *John* xi. 44.

The frosty *grave* and colde must be my bedde,
Without ye list your grace and mercy shewe.
Chaucer. The Court of Love.

Therefore to ground he would him cast no more,
Ne him commit to *grave* terrestrial,
But beare him far from hope of comfort usual.
Spenser. Faerie Queene.

But of such subtle substance and unsound,
That like a ghost he seemed, whose *grave-cloaths* were unbound. *Spenser.*

No man could ever have thought this reasonable, that had intended thereby only to punish the injury committed, according to the *gravity* of the fact.
Hooker.

Now it is the time of night,
That the *graves*, all gaping wide,
Every one lets forth his spright,
In the church-way paths to glide.
Shakspeare.

There is not a white hair on your face but should have his effect of *gravity*. *Id. Henry IV.*

Our youths and wildness shall no whit appear,
But all be buried in his *gravity*. *Shakspeare.*

Timon, presently prepare thy *grave*;
Lye where the light foam of the sea may beat
Thy *grave-stone* daily. *Id. Timon.*

There's more gold:
Do you damn others, and let this damn you:
And ditches *grave* you all! *Id.*

My brave Egyptians all,
By the discandying of this pelletted storm,
Lie *graveless*. *Id Antony and Cleopatra.*

Than settled age his sables and his weeds
Importing health and *graveness*. *Shakspeare.*

To the more mature,
A glass that featured them; and to the *grave*,
A child that guided dotards. *Id. Cymbeline.*

We should have else desired
Your good advice, which still hath been both *grave*
And prosperous in this day's council. *Shakspeare.*

For the advocates and council that plead, patience and *gravity* of hearing is an essential part of justice.
Bacon.

The Roman state was of all others the most celebrated for their virtue, as the *gravest* of their own writers, and of strangers, do bear them witness.
Grew's Cosmologia.

Ah yet, ere I descend to the *grave*,
May I a small house and large garden have.
Cowley.

After death I nothing crave,
Let me alive my pleasures have,
All are stoics in the *grave*. *Id.*

Some, therefore, thought those goblins which appeare
To haunt old *graves* and tombes, are soules of such
Who to these loathesome places doomed were
Because they doted on the flesh too much.
Geo. Withers.

Great men sometime, will *gravely* undertake
To teach how bromes and morter should be made.
Id.

To walk upon the *graves* of our dead masters,
Is our own security. *Denham's Sophy.*

But yet beware of counsels when too full;
Number makes long disputes and *graveness* dull.
Denham.

Thou standest
Gravely in doubt when to hold them wise.
Milton.

Thou wilt not leave me in the loathsome *grave*.
Id.

Upon its crest this mountain *grave*,
A plume of aged trees does wave. *Marvell.*

Bodies do swim or sink in different liquors, according to the tenacity or *gravity* of those liquors which are to support them. *Browne.*

Accent, in the Greek names and usage, seems to have regarded the tone of the voice, the acute accent raising the voice, in some syllables, to a higher, i. e. more acute pitch or tone, and the *grave* depressing it lower, and both having some emphasis, i. e. more vigorous pronunciation. *Holder.*

Even the *grave* and serious characters are distinguished by their several sorts of *gravity*. *Dryden.*

They were wont once a year to meet at the *graves* of the martyrs; there solemnly to recite their sufferings and triumphs, to praise their virtues, to bless God for their pious examples, for their holy lives, and their happy deaths. *Nelson.*

A flood of waters would overwhelm all those fragments which the earth broke into, and bury in one common *grave* all the inhabitants of the earth.
Burnet.

The emperors often jested on their rivals or predecessors, but their mints still maintained their *gravity*.
Addison.

A girl longs to tell her confidant that she hopes to be married in a little time, and asks her very *gravely* what she would have her to do. *Id. Spectator.*

Youth on silent wings is flown;
Graver years come rolling on. *Prior.*

That quality by which all heavy bodies tend towards the centre, accelerating their motion the nearer they approach towards it, true philosophy has shewn to be unsolvable by any hypothesis, and resolved it into the immediate will of the Creator. Of all bodies, considered within the confines of any fluid, there is a twofold *gravity*, true and absolute, and vulgar or comparative; absolute *gravity* is the whole force by which any body tends downwards; but the relative or vulgar is the excess of *gravity* in one body above the specific *gravity* of the fluid, whereby it tends downwards more than the ambient fluid doth. *Quincy.*

Though this increase of density may at great dis

tances be exceeding slow, yet if the elastick tone of this medium be exceeding great, it may suffice to impel bodies from the denser parts of the medium towards the rarer, with all that power which we call *gravity*. *Newton's Opticks.*

Those who have nature's steps with care pursued,
That matter is with active force endued,
That all its parts magnetick power exert,
And to each other *gravitate*, assert. *Blackmore.*

Women, obstructed, have not always the forementioned symptoms: in those the signs of *gravidity* and obstructions are hard to be distinguished in the beginning. *Arbuthnot on Diet.*

That subtle matter must be of the same substance with all other matter, and as much as is comprehended within a particular body must *gravitate* jointly with that body. *Bentley.*

To laugh, were want of goodness and of grace;
And to be *grave* exceeds all power of face. *Pope.*

When the loose mountain trembles from on high,
Shall *gravitation* cease, if you go by? *Id.*

A tomb, indeed, with fewer sculptures graced
Than that Mausolus' pious widow placed,
Or where, enshrined, the great Darius lay;
But cost on *graves* is merely thrown away. *Id.*

That rest they wished for grant them in the *grave*;
And bless those souls my conduct helped to save. *Id.*

Catius is ever moral, ever *grave*,
Thinks who endures a knave is next a knave,
Save just at dinner—then prefers, no doubt,
A rogue with ven'son to a saint without. *Id.*

Wisdom's above suspecting wiles;
The queen of learning *gravely* smiles. *Swift.*

A formal story was very *gravely* carried to his excellency, by some zealous members. *Id.*

They have as much reason to pretend to, and as much necessity to aspire after, the highest accomplishments of a Christian and solid virtue, as the *gravest* and wisest among Christian philosophers. *Law.*

He will tell you, with great *gravity*, that it is a dangerous thing for a man that has been used to get money, ever to leave it off. *Id.*

Is't not enough the blockhead scarce can read,
But must he wisely look, and *gravely* plead? *Young.*

There would he dream of *graves* and corses pale. *Beattie's Minstrel.*

Checked by the scoff of Pride, by Envy's frown,
And Poverty's unconquerable bar;
In life's low vale, remote, has pined alone,
Then dropt into the *grave* unpitied, and unknown. *Id.*

And there—oh! sweet and sacred be the name!—
Julia—the daughter, the devoted—gave
Her youth to Heaven; her heart, beneath a claim,
Nearest to Heaven's, broke o'er a father's *grave*. *Byron. Childe Harold.*

GRAVE, *v. a.* & *v. n.* } Sax. ȝnapan; Goth.
GRAV'ER, *n. s.* } *grafa*; Belg. *graaven*;
GRAV'ING, *n. s.* } Fr. *graver, graveur*; Gr. γραφω. To insculp or carve figures out of stone, iron, or any hard substance; to write upon or delineate; to clean, caulk, and sheath a ship: *graver* is one who copies pictures upon wood or metal to be impressed on paper; the style or tool used in graving: graving is carved work.

Thou shalt make a plate of pure gold, and *grave* upon it. *Exodus* xxviii. 36.

Skilful to work in gold; also to *grave* any manner of *graving*, and to find out every device which shall be put to him. 2 *Chron.* ii. 14.

What profiteth the *graven* image, that the make, thereof hath *graven* it. *Hebrews* ii. 18.

Go, sell it them that smalè seles *grave*;
We wol the not. *Chaucer. Troilus and Creseide.*

Eke some men *grave* in tre, some in stone wal,
As it betide: but sith I have begonne,
Mine authour shall I folow as I konne. *Id.*

And aftir this was *graved*, alas!
How Ilions castill assailed was,
And won, and kyng Priamus slain,
And Polites his sonne certain,
Dispitously of Dan Pyrrhus. *Chaucer.*

Later vows, oaths, or leagues, can never blot out those former *gravings* or characters, which by just and lawful oaths were made upon their souls. *King Charles.*

Cornice with bossy sculptures *graven*. *Milton.*

With all the care wherewith I tried upon it the known ways of softening *gravers*, I could not soften this. *Boyle.*

The *gravers* can, and ought, to imitate the bodies of the colours by the degrees of the lights and shadows: 'tis impossible to give much strength to what they *grave*, after the works of the schools, without imitating in some sort the colour of the objects. *Dryden's Dufresnoy.*

If he makes a design to be *graved*, he is to remember that the *gravers* dispose not their colours as the painters do; and that, by consequence, he must take occasion to find the reason of his design in the natural shadows of the figures, which he has disposed to cause the effect. *Id.*

Thy sum of duty let two words contain;
O! may they *graven* in thy heart remain!
Be humble and be just. *Prior.*

The toilsome hours in different labour slide,
Some work the file, and some the *graver* guide. *Gay's Fables.*

GRAVE, in grammar, a species of accent opposite to acute. The grave accent is expressed thus (`); and shows that the voice is to be depressed, and the syllable over which it is placed pronounced in a low deep tone.

GRAVE, in music, is applied to a sound which is in a low or deep tone. The thicker the chord or string, the more grave the tone or note, and the smaller the acuter. Notes are supposed to be the more grave, in proportion as the vibrations of the chord are less quick.

GRAVE, a town of North Brabant, in the Netherlands, on the left bank of the Maese: it is fortified, and made a gallant defence against the French in the winter of 1794-5. Population 1600. Nine miles south by west of Nimeguen and eighteen north-east of Bois le Duc.

GRAVER. See ENGRAVING.

GRAV'EL, *n. s.* & *v. a.* } Fr. *gravelle, graveleux*; Belg. *graveel*;
GRAV'ELLY, *adj.* } Gothic *griv*; Ital. *gravella*. Hard sand; sandy concretions in the kidneys: to pave or cover with gravel; to stick in the sand: figuratively to puzzle; to perplex; to disquiet. A gravelly soil is one in which gravel abounds.

——————I sawe a little well,
That had his course, as I could wele beholde,
Under an hill with quicke stremes and cold,
The *gravell* gold, the water pure os glasse,
The bankes rounde the well environing;
And soft as velvet was the yonge grasse.
Chaucer. Complaint of the Blacke Knight.

The martiall mayd stayd not him to lament,
But forward rode, and kept her steady way

Along the strond; which as she overwent
She saw bestrowed all with rich aray
Of perles and pretious stones of great assay,
And all the *gravell* mixt with golden owre,
Whereat she wondered much.
Spenser's Faerie Queene.

Proofs as clear as founts in July, when
We see each grain of *gravel*. *Shakspeare.*

—Nay, you were better speak first, and when you were *gravelled* for lack of matter you might take occasion to kiss. *Id.*

There are some natural spring waters that will inlapidate wood; so that you shall see one piece of wood, whereof the part above the water shall continue wood, and the part under the water shall be turned into a *gravelly* stone.
Bacon's Natural History.

Moss groweth upon alleys, especially such as lie cold, and upon the north, as in divers terrasses; and again, if they be much trodden, or if they were at the first *gravelled*. *Bacon.*

If you live in a consumptive air, make choice of the more open, high, dry, and *gravelly* part of it.
Harvey on Consumptions.

The disease itself will *gravel* him to judge of it; nor can there be any prediction made of it, it is so sharp. *Howel.*

What work do our imaginations make with eternity and immensity? and how are we *gravelled* by their cutting dilemmas? *Glanville's Scepsis.*

So deep and yet so clear, we might behold
The *gravel* bottom, and that bottom gold. *Dryden.*

Gravel walks are best for fruit-trees. *Mortimer.*

The upper garden at Kensington was at first nothing but a *gravel* pit. *Spectator.*

Mat, who was here a little *gravelled*,
Tossed up his nose, and would have cavilled. *Prior.*

Gravel consists of flints of all the usual sizes and colours; of the several sorts of pebbles; sometimes with a few pyritæ, and other mineral bodies, confusedly intermixed, and common sand. *Woodward.*

If the stone is brittle it will often crumble, and pass in the form of *gravel*: if the stone is too big to pass, the best method is to come to a sort of a composition or truce with it. *Arbuthnot.*

Providence permitted not the earth to spend itself in base *gravels* and pebbles, instead of quarries of stones. *More.*

Gravel, in gardening, a congeries of pebbles, which, mixed with a stiff loam, makes lasting and elegant gravel walks; an ornament peculiar to our gardens, and which gives them an advantage over those of other nations.

Gravel, in medicine. See Medicine.

Gravel Walks. To make these properly, the bottom should be laid with lime rubbish, large flint stones, or any other hard matter, for eight or ten inches thick, to keep weeds from growing through, and over this the gravel is to be laid six or eight inches thick. This should be laid rounding up in the middle, by which means the larger stones will run off to the sides, and may be raked away; for the gravel should never be screened before it is laid on. It is an error to lay these walks too round, which not only makes them uneasy to walk upon, but takes off from their apparent breadth. One inch in five feet is a sufficient rise in the middle; so that a walk of twenty feet wide should be only four inches higher at the middle than at the edges, and so in proportion. As soon as the gravel is laid, it should be raked, and the large stones thrown back again: then the whole should be rolled both lengthwise and crosswise; and the person who draws the roller should wear shoes with flat heels, that he may make no holes; because holes made in a new walk are not easily remedied. The walks should always be rolled three or four times in very hard showers, after which they will bind more firmly than otherwise they could ever be made to do. Gravel, with some loam among it, binds more firmly than the rawer kinds; and, when gravel is naturally very harsh and sharp, it is proper to add a mixture of loam to it. The best gravel for walks is such as abounds with smooth round pebbles, which, being mixed with a little loam, are bound so firmly together that they are never afterwards injured, either by wet or dry weather These are not so liable to be turned up by the feet in walking, as the more irregularly shaped pebbles and remain much more firmly in their places after rolling.

Graves (Richard), an English divine and poet, was born at Mickleton, in Gloucestershire in 1715. He was a student of Pembroke College, Oxford, and afterwards obtained a fellowship of All Souls. In 1750 he was presented to the rectory of Claverton near Bath; and Mr. Allen, of Prior park, added to it, in 1663, that of Kilmersdon. He died in 1804. His works are, 1. The Festoon, or Epigrams, 12mo. 2. Lucubrations in prose and rhyme. 3. The Spiritual Quixote, a novel, in 3 vols. 4. Columella, or the distressed Anchoret, 2 vols. 5. Euphrosyne, a collection of poems, 2 vols. 6. Eugenius, or the Golden Vale, 2 vols. 7. Recollections of particulars in the life of Shenstone. 8. Plexippus, or the aspiring Plebeian, 2 vols. 9. The Reveries of Solitude. 10. The Coalition, a comedy. 11. Sermons, 8vo. 12. The Farmer's Son, a moral tale. 13. The Invalid, with the Means of enjoying long Life. 14. Senilities. Besides these publications, he translated Marcus Antoninus' Meditations, and other books, from the Greek.

Graves, among the Jews, were generally out of the city, though there are instances of their interring the dead in towns. Frequent mention is made of graves upon mountains, in highways, in gardens, and private houses; so that nothing on this head seems to have been determined. The same may be observed with respect to the Greeks. The Thebans had a law that every person who built a house should provide a burial ground. Men who had distinguished themselves were frequently buried in the public forum. The most general custom was, however, to bury out of the city, chiefly by the highway side. The Romans were forbidden by the law of the twelve tables to bury or burn the dead in the city; but some had their sepulchres in Rome, though they paid a fine for the indulgence. See Jews.

GRAVESANDE (William James), LL.D. and F.R.S., an eminent mathematician, born of an ancient family at Delft, in Holland, in 1688. He studied the civil law at Leyden, but mathematical learning was his favorite amusement. When he had taken his degree, in 1707, he settled at the Hague, and practised at the bar, in which situation he cultivated an acquaintance with learned men; with a society of whom he

published a periodical review, entitled Le Journal Literaire, which was continued without interruption from 1713 to 1742, when he died. The most considerable of his works are, 1. A Treatise on Perspective; 2. An Introduction to the Newtonian Philosophy, or A Treatise on the Elements of Physics, confirmed by Experiments. 3. A Treatise on the Elements of Algebra for the use of Young Students; and, 4. A Course of Logic and Metaphysics. The ministers of the republic consulted him on many occasions, and his skill in calculation was often of service to them; as well as his address in decyphering the secret correspondence of their enemies. In 1715 he was sent to the states to congratulate George I. on his accession; and, on his return, was appointed professor of mathematics and astronomy at Leyden, where he was the first that taught the Newtonian philosophy. He was intimately acquainted with Sir Isaac Newton.

GRAVESEND, a town of England, in Kent, situated on the banks of the Thames. It is twenty-three miles from London, and has a blockhouse mounted with cannon, to command the ships and river, opposite to Tilbury fort in Essex. This town was plundered and burnt by the French and Spaniards in the reign of Richard II., to compensate which, the king vested it and Milton with the sole privilege of carrying passengers by water to London, at 4*s*. the whole fare, or 2*d*. a-head, which was confirmed by Henry VIII. Coaches ply here at the landing of people from London, &c., to carry them to Rochester. This town and Milton were incorporated by queen Elizabeth, and granted some peculiar privileges. All outward-bound ships were formerly obliged to anchor in this road till they had been visited by the custom-house officers; but those homeward-bound always passed by without notice, unless to put waiters on board, if they are not supplied before. The town being burnt down in 1727, £5000 was granted by the parliament in 1731, to rebuild its church. In 1624 one Mr. Pinnock gave twenty-one dwelling houses, besides one for a master weaver, to employ the poor; and there is a charity school for twenty-four boys, who are both taught and clothed. The town-house was erected in 1764; and in 1772 an act was passed for paving and lighting the streets. Steam boats start for this town from the tower stairs every morning at eight o'clock, and return the same night.

GRAVINA (John Vincent), an eminent scholar and illustrious lawyer of Italy, born at Roggiano in 1664. He was professor of the canon law in the college of Sapienzi at Rome; where he died in 1718. His chief work is De ortu et progressu Juris Civilis.

GRAVINA, a considerable town and bishop's see of Naples, in the province of Bari, contains nine churches, and a population of 8800. Ten miles west of Matera, and twenty-seven south of Trani.

GRAVINA'S ISLANDS, three islands on the coast of North-West America, from twenty to fifty miles in circumference, separated by narrow channels, covered with innumerable rocky islets. They lie between Clarence's Strait and the canal de Revilla Gigedo, and extend about forty miles from north-west to south-east. Long. 228° 24′ to 229° 5′ E., lat. 54° 52′ to 55° 27′ N.

GRAVITY, or GRAVITATION (for they are most commonly used synonymously), signifies either the force by which bodies are pressed towards the surface of the earth, or the manifest effect of that force; in which last sense the word has the same signification with weight or heaviness. Concerning gravity in the first sense of the word, or that active power by which all bodies are impelled towards the earth, there have been great disputes. Many eminent philosophers, and among the rest Sir Isaac Newton himself, have considered it as the first of all second causes; an incorporeal or spiritual substance, which never can be perceived any other way than by its effects: a universal property of matter, &c. Others have attempted to explain the phenomena of gravitation by the action of a very subtile ethereal fluid; and to this explanation Sir Isaac, in the latter part of his life, seems not to have been averse. He has even given a conjecture concerning the matter in which this fluid might occasion these phenomena. But for a full account of the discoveries of this great philosopher concerning the laws of gravitation, the conjectures made by him and others concerning its cause, the various objections that have been made to its doctrine, and the state of the dispute at present, see the articles ASTRONOMY, ATMOSPHERE, ATTRACTION, EARTH, ELECTRICITY, FIRE, LIGHT, NEWTONIAN PHILOSOPHY, REPULSION, PLENUM, VACUUM, &c.

GRAVITY, SPECIFIC, denotes the weight belonging to an equal bulk of every different substance. Thus the exact weight of a cubic inch of gold, compared with a cubic inch of water, tin, lead, &c., is called its specific gravity.

GRAUNT (Edward), an eminent English grammarian of the sixteenth century. He was head master of Westminster school, and published a work entitled Græcæ Linguæ Specilegium, et Institutio Græcæ Grammaticæ. He died in 1601.

GRAUNT (John), F.R.S., author of a curious and celebrated book, entitled Natural and Political Observations made upon the Bills of Mortality. He was a haberdasher, but gave up his trade, and all public employments, on account of his religion He was educated a Puritan; afterwards professed himself a Socinian; but at last died a Roman Catholic in 1674.

GRA'VY, *n. s.* From Sax. ȝꞃeoꝼa, a pan, and ꝼæꞇ, fat, i. e. the fat of the pan. The serous juice that runs from flesh at the fire.

> Meat we love half raw, with the blood trickling down from it, delicately terming it the *gravy*, which in truth looks more like an ichorous or raw bloody matter. *Harvey on Consumptions.*

> There may be stronger broth made of vegetables than of any *gravy* soup. *Arbuthnot on Aliments.*

GRAY, *adj.* & *n. s.*
GRAY'-BEARD, *n. s.*
GRAY'LING, *n. s.*
GRAY'NESS, *n. s.*
} Sax. ȝꞃæȝ; Teut. *grau*; Dut. *graau*. A word generally descriptive of color, as white with a mixture of black; the color of ashes; twilight; hoary with age. Gray-beard is a contemptuous term applied to old men. Grayling, a fish.

And hertes hevie for to recomforte,
From drerihed of hevie nightes sorowe,—
Nature bad hem rise, and hem disporte
Ayen the godelie and they ȝreie morowe.
Chaucer. Complaint of the Blacke Knight.

His stede was all dapple *gray*,
It goth an aumble on the way.
Id. The Rime of Sire Thopas.

All musick sleepes, where death doth lead the daunce,
And shepheards wonted solace is extinct.
The blew in black, the greene in *gray*, is tinct.
Spenser. The Shepheard's Calender.

Have I in conquest stretcht mine arm so far,
To be afraid to tell *graybeards* the truth?
Shakspeare.

Youngling, thou canst not love so dear as I.
—*Graybeard*, thy love doth freeze. *Id.*

The *gray*-eyed morn shines on the frowning night,
Chequering the eastern clouds with streaks of light.
Id.

I'll say yon *gray* is not the morning's eye;
'Tis but the pale reflex of Cynthia's brow. *Id.*

Our women's names are more gracious than their Cæsilia, that is, *gray*-eyed. *Camden's Remains.*

Living creatures generally do change their hair with age, turning to be *gray*; as is seen in men, though some earlier and some later; in horses, that are dappled and turn white; in old squirrels that turn grisly, and many others. *Bacon's Natural History.*

Anon,
Gray-headed men and grave, with warriours mixed
Assemble. *Milton's Paradise Lost.*

They left me then, when the *gray* headed even,
Like a sad votarist in palmer's weed,
Rose from the hindmost wheels of Phœbus' wain.
Milton.

The restoration of *gray* hairs to juvenility, and renewing the exhausted marrow, may be effected.
Glanville's Scepsis.

The *grayling* lives in such rivers as the trout does, and is usually taken with the same baits and after the same manner: he is of a fine shape, his flesh white, and his teeth, those little ones that he has, are in his throat. He is not so general a fish as the trout, nor so good to eat. *Walton's Angler.*

Thou hast neither forsaken me now I am become *gray*-headed, nor suffered me to forsake thee in the late days of temptation. *Walton.*

Gray-headed infant! and in vain grown old:
Art thou to learn that in another's gold
Lie charms resistless? *Dryden's Juvenal.*

Down sunk the sun, the closing hour of day
Came onward, mantled o'er with dusky *gray*.
Parnell.

We most of us are grown *gray*-headed in our dear master's service. *Addison's Spectator.*

These *gray* and dun colours may be also produced by mixing whites and blacks, and by consequence differ from perfect whites, not in species of colours, but only in degree of luminousness. *Newton.*

Soon as the *gray*-eyed morning streaks the skies,
And in the doubtful day the woodcock flies. *Gay.*

Her *gray*-haired synods damning books unread,
And Bacon trembling for his brazen head. *Pope.*

Afar, a dwarf buffoon stood telling tales
To a sedate *gray* circle of old smokers,
Of secret treasures found in hidden vales,
Of wonderful replies from Arab jokers.
Byron. Don Juan.

GRAY (Thomas), a celebrated English poet, was born in Cornhill, in 1716. He was educated at Eton, where he contracted a friendship with Horace Walpole, and with Mr. Richard West, son of the lord chancellor of Ireland. Mr. West and Mr. Gray were both intended for the bar; but the latter was diverted from that pursuit by an invitation to accompany Mr. Walpole in his travels; which he accepted without any determined plan for his future life. When he returned, finding himself in narrow circumstances, yet with a mind not disposed for active employment, he retired to Cambridge, and devoted himself to study. Soon after his return, his friend West died: and the melancholy impressed on him by this event may be traced in his admired Elegy written in a country churchyard, which is thought to have been written at this time. The first impulse of his sorrow for the death of his friend gave birth also to a Sonnet, on the Model of Petrarch; and to an Apostrophe in Hexameters, with which he intended to begin one of his books De Principiis Cogitandi. From the winter of 1742 to his death his residence was at Cambridge; except between 1759 and 1762; when, on the opening of the British Museum, he took lodgings in Southampton-Row, in order to have recourse to the Harleian, and other MSS. About 1747 Mr. Mason, the editor of Mr. Gray's poems, was introduced to him. Mason had written some imitations of Milton's Juvenile Poems viz. A Monody on the death of Mr. Pope, and two pieces, entitled Il Billicoso and Il Pacifico, on the peace of Aix-la-Chapelle; and Mr. Gray revised them. This laid the foundation of an intimacy which continued without interruption till Mr. Gray's death. About 1760 Mr. Gray finally revised his celebrated Elegy written in a country church-yard, and communicated it to his friend Mr. Walpole, and it was shown about for some time in MS. At last the publisher of one of the magazines having obtained a surreptitious copy of it, Gray wrote to Walpole, desiring that he would put his own MS. into the hands of Mr. Dodsley, and order him to print it immediately. This was the most popular of all our author's publications. It ran through eleven editions in a very short time; and was finally translated into Latin by Messrs Ansty and Roberts, and by Mr. Lloyd. From 1759 to 1762, he generally resided in London. In July, 1768, the duke of Grafton wrote him, that his majesty had been pleased to offer to him the professorship of Modern History in the university of Cambridge, then vacant. This place was valuable, the salary being £400 a-year; and was the more acceptable to Mr. Gray that it was given him without solicitation.

He seems early in life to have had an intention of publishing an edition of Strabo; for his papers contain a great number of notes and geographical disquisitions on that author, particularly with respect to that part of Asia which comprehends Persia and India. Another work, on which he bestowed uncommon labor, was the Anthologia. In an interleaved copy of that collection of Greek epigrams, he has transcribed several additional ones, which he selected in his extensive reading; and has inserted a great number of critical notes and emendations, and subjoined a copious index. But whether he intended this performance for the press or not, is uncertain.

The only work which he undertook with this direct view from the beginning, was A History of English Poetry, upon a plan sketched out by Pope. He has mentioned this himself in an advertisement to those three fine imitations of Norse and Welsh poetry, which he gave the world in the last edition of his poems. But, after he had made some preparations for the execution of this design, being informed that Mr. Warton, of Trinity College, Oxford, was engaged in a work of the same kind, he relinquished the undertaking; and soon after, on that gentleman's desiring a sight of his plan, our author readily sent him a copy of it. Mr. Gray had acquired a great knowledge of Gothic architecture. He had seen and studied in his youth, while abroad, the Roman proportions, both in ancient times, and in the works of Palladio. In his later years he applied himself to consider those stupendous structures of more modern date that adorn our own country; which, if they have not the same grace, have undoubtedly equal dignity. He endeavoured to trace this mode of building from the time it commenced through its various changes, till it arrived at its perfection in the reign of Henry VIII. and ended in that of Elizabeth. But his favorite study for the last ten years of his life was natural history. The marginal notes which he has left on Linnæus and other writers on the vegetable, animal, and fossile kingdoms, are numerous: but the most considerable are on Hudson's Flora Anglica, and the tenth edition of the Systema Naturæ. He died in 1771; and an edition of his poems, with memoirs of his life and writings, was published in 4to., in 1775, by Mr. Mason.

Gray (Edward Whitaker), F.R.S., an English physician and naturalist, was several years senior secretary to the Royal Society, and keeper of the department of natural history and antiquities at the British Museum. He was the author of an Account of the Epidemic Catarrh of the year 1782, in the first volume of Dr. Duncan's Medical Commentaries; Observations on the Manner in which Glass is charged with the Electric Fluid and discharged; and Observations on the Class of Animals called, by Linnæus, Amphibia; both published in the Philosophical Transactions. Dr. Gray died in January, 1807, aged fifty-nine.

Gray's Harbour, a bay on the west coast of North America, examined by Vancouver. The entrance, about a mile wide, has a bar directly across, after passing which, the channel appears to be uninterrupted, the northern side being deepest. Long. 236° 7′ E., lat. 47° N.

GREASE, *n. s.* & *v. a.* } Fr. *graisse*; Ital. *grassa, grasso*; of Lat. *crassus*. — Minsheu.
Greas'iness, *a. s.* }
Greas'y, *adj.* }

The soft part of animal fat; a disease in the legs of horses: oily; fat; unctuous: to smear with grease; and, figuratively, to bribe or corrupt with presents.

Grease, that's sweaten
From the murtherer's gibbet, throw
Into the flame.
Shakspeare. Macbeth.

Let's consult together against this *greasy* knight.
Shakspeare.

The fragments, scraps, the bits and *greasy* reliques
Of her o'ereaten faith. *Id.*

To take out a spot of *grease* they use a coal upon brown paper. *Bacon's Natural History.*

Even the lewd rabble
Governed their roaring throats, and grumbled pity:
I could have hugged the *greasy* rogues; they pleased me. *Otway.*

Upon the most of these stones, after they are cut, there appears always, as it were, a kind of *greasiness* or unctuosity. *Boyle.*

Thou hopest, with sacrifice of oxen slain,
To compass wealth, and bribe the god of gain
To give thee flocks and herds, with large encrease;
Fool! to expect them from a bullock's *grease*.
Dryden's Juvenal.

A girdle, foul with *grease*, binds his obscene attire.
Dryden.

Envy not the store
Of the *greased* advocate that grinds the poor. *Id.*

Buy sheep, and see that they be big-boned, and have a soft, *greasy*, well curled close wool.
Mortimer

Or Sappho at her toilette's *greasy* task,
With Sappho fragrant at an evening mask.
Pope.

GREAT, *adj.* Sax. ȝpeat; Dut. *groot*; Swed. *grot*. Large in bulk or number.

All these cities were fenced with high walls, gates, and bars, besides unwalled towns a *great* many. *Deut.* iii. 5.

Judas one of the twelve came, and with him a *great* multitude with swords and staves. *Matt.* xxvi.

Gret was the feste in Athenes thilke day.
Chaucer. The Knightes Tale.

Elemental air diffused
In circuit to the uttermost convex
Of this *great* round. *Milton.*

And God created the *great* whales. *Id.*

A dungeon horrible, on all sides round,
As one *great* furnace flamed. *Id.*

The tallest pine
Hewn on Norwegian hills, to be the mast
Of some *great* admiral. *Id.*

Having any quality in a high degree.

There were they in *great* fear.
Psalm xiv. 5.

All sodainly, I was right glad,
That *gretir* joy, as mote I thrive,
I trow had never man alive.
Chaucer. Dreame.

Their power was *great*. *Milton.*

Great triumph and rejoicing was in heaven. *Id.*

Charms such as thine, inimitably *great*,
He only could express. *Broome.*

Having number or bulk, relative or comparative.

The idea of so much is positive and clear: the idea of *greater* is so clear, but it is but a comparative idea. *Locke.*

Considerable in extent or duration.

Thou hast spoken of thy servant's house for a *great* while to come. 2 *Sam.* vii. 19.

Important; weighty.

Many
Have broke their backs with laying manors on them,
For this *great* journey. *Shakspeare. Henry VIII.*

Make sure
Her favors to thee, and the *great* oath take
With which the blessed gods assurance make.
Chapman.

——— the muses are in all things free:
Fit subject of their verse all creatures be;

And there is nothing named so meane, or *great*,
Whereof they have not liberty to treat.
Geo. Withers.

What is low raise and support,
That to the height of this *great* argument
I may assert eternal Providence,
And vindicate the ways of God to men. *Milton.*

On some *great* charge employed
He seemed, or fixed in cogitation deep *Id.*

By experience of this *great* event,
In arms not worse. *Id.*

After silence then,
And summons read, the *great* consult began. *Id.*

And though this be a *great* truth, if it be impartially considered, yet it is also a *great* paradox to men of corrupt minds and vicious practices.
Tillotson.

Chief; principal.

Hear the king's pleasure, cardinal, who commands you
To render up the *great* seal presently.
Shakspeare. Henry VIII.

For, still, one line another draweth on,
And line by line *great* workes at last are done.
Geo. Withers.

Venerable; adorable; awful.

Thou first art wont God's *great* authentick will,
Interpreter, through highest heaven to bring.
Milton.

Wonderful; marvellous.

Great things, and full of wonder. *Milton.*

Of high rank; of large power.

It is not long since these two eyes beheld
A mightie prince, of most renowned race,
Whom England high in count of honour held,
And *greatest* ones did sue to gaine his grace;
Of *greatest* ones he *greatest* in his place.
Spenser. Faerie Queene.

Such men as he be never at heart's ease,
Whilst they behold a *greater* than themselves.
Shakspeare.

Worthiest by being good,
Far more than *great* or high. *Milton.*

Misfortune made the throne her seat,
And none could be unhappy but the great.
Rowe.

The marble tombs that rise on high,
Whose dead in vaulted arches lie;
These, all the poor remains of state,
Adorn the rich, or praise the *great*. *Parnell.*

Of all the *great* how few
Are just to heaven, and to their promise true!
Pope.

Despise the farce of state,
The sober follies of the wise and *great*. *Id.*

General; extensive in consequence or influence.

Prolifick humour sof'ning all her globe,
Fermented the *great* mother to conceive.
Milton.

Illustrious; eminent; noble; excellent.

O Lord, thou art *great*, and thy name is *great* in might. *Jer.* x. 6.

The *great* Creator thus replyed. *Milton.*

The *great* Son returned
Victorious with his saints. *Id.*

Fair angel, thy desire that tends to know
The works of God, thereby to glorify
The *great* work-master, tends to no excess
That reaches blame. *Id.*

The *great* luminary
Aloof the vulgar constellations thick,
That from this lordly eye keep distance due,
Dispenses light from far. *Id.*

When Dutch invade and parliament prepare,
How can he engines so convenient spare?
Let no man touch them, or demand his own,
Pain of displeasure of *great* Clarendon. *Marvell.*

Under this attic cope I move,
Like some *great* prelate of the grove. *Id.*

Here Cesar graced with both Minervas shone,
Cesar, the world's *great* master, and his own.
Pope.

Scipio,
Great in his triumphs, in retirement *great*. *Id*

Grand of aspect; of elevated mien.

Such Dido was; with such becoming state,
Amidst the crowd, she walks serenely *great*.
Dryden.

Magnanimous; generous; high-minded.

In her every thing was goodly and stately; yet so, that it might seem that *great* mindedness was but the ancient bearer to the humbleness. *Sidney.*

Great men have always scorned *great* recompenses:
Epaminondas saved his Thebes, and died
Not leaving even his funeral expenses. *Byron.*

Opulent; sumptuous; magnificent.

Not Babylon,
Nor *great* Alcairo, such magnificence
Equalled in all their glories. *Milton.*

He disdained not to appear at *great* tables and festival entertainments. *Atterbury.*

Intellectually great; sublime.

This new created world, how good, how fair,
Answering his *great* idea. *Milton.*

Alas! could she but fully truly know
How her *great* name is now throughout abhorred;
How eager all the earth is for the blow
Which shall lay bare her bosom to the sword!
Byron.

Swelling; proud.

Solyman perceived that Vienna was not to be won with words, nor the defendants to be discouraged with *great* looks; wherefore he began to batter the walls.
Knolles.

Familiar; much acquainted. A low word.

Those that would not censure, or speak ill of a man immediately, will talk more boldly of those that are *great* with them, and thereby wound their honour.
Bacon.

Pregnant; teeming.

Their bellies *great*
With swelling vanity, bring forth deceit.
Sandys.

His eyes sometimes even *great* with tears.
Sidney.

This fly, for most he stings in heat of day,
From cattle *great* with young keep thou away.
May.

It is added in every step of ascending or descending consanguinity: as *great* grandson is the son of my grandson.

I dare not yet affirm for the antiquity of our language, that our *great-great-great* grandsires' tongue came out of Persia. *Camden.*

What we call *great great* grandfather they called forthafader. *Id. Remains.*

Their holy-day-cloaths go from father to son, and are seldom worn out till the second or third generation; so that 'tis common enough to see a countryman in the doublet and breeches of his *great* grandfather. *Addison.*

Hard; difficult; grievous. A proverbial expression.

It is no *great* matter to live lovingly with good-natured and meek persons. *Taylor's Devotion.*

GREAT, *n. s.* [from the adjective]. The whole; the gross; the whole in a lump.

To let out thy harvest by *great* or by day,
Let this by experience lead thee the way:
By *great* will deceive thee with lingering it out,
By day will dispatch. *Tusser's Husbandry.*

It were behoveful, for the strength of the navy, that no ships should be builded by the *great*; for by daily experience they are found to be weak and imperfect. *Raleigh's Essays.*

He did at length so many slain forget,
And lost the tale, and took them by the *great*.
Dryden.

Carpenters build an house by the *great*, and are agreed for the sum of money.
Moxon's Mechanical Exercises.

I set aside one day in a week for lovers, and interpret by the *great* for any gentlewoman who is turned of sixty. *Addison.*

GREA'TBELLIED, *adj.* Great and belly. Pregnant; teeming.

Greatbellied women
That had not half a week to go, like rams
In the old time of war, would shake the press.
Shakspeare.

A *greatbellied* woman, walking through the city in the day-time, had her child struck out of her womb, and carried half a furlong from her. *Wilkins.*

GRE'ATEN, *v. a.* From great. To aggrandize; to enlarge; to magnify. A word little used.

After they sought to *greaten* themselves in Italy itself, using strangers for the commanders of their armies, the Turks by degrees beat them out of all their goodly countries. *Raleigh.*

A favourite's business is to please his king, a minister's to *greaten* and exalt him. *Kenyon.*

GREATHEA'RTED. *adj.* Great and heart. High-spirited; undejected.

The earl, as *greathearted* as he, declared that he neither cared for his friendship, nor feared his hatred.
Clarendon.

GRE'ATLY, *adv.* From great.
In a great degree.
Thy sorrow will I *greatly* multiply. *Milton.*
Nobly; illustriously.
Yet London, empress of the northern clime,
By an high fate thou *greatly* didst expire.
Dryden.
Magnanimously; generously; bravely.
Where are these bold intrepid sons of war,
That *greatly* turn their backs upon the foe,
And to their general send a brave defiance?
Addison.

GRE'ATNESS, *n. s.* From great.
Largeness of quantity and number.
Comparative quantity.

We can have no positive idea of any space or duration, which is not made up of and commensurate to repeated numbers of feet or yards, or days or years, and whereby we judge of the *greatness* of these sort of quantities. *Locke.*

All absent good does not, according to the *greatness* it has, or is acknowledged to have, cause pain equal to that *greatness*, as all pain causes desire equal to itself; because the absence of good is not always a pain, as the presence of pain is. *Id.*

High degree of any quality.

Zeal in duties, should be proportioned to the *greatness* of the reward, and the certainty. *Rogers.*

High place; dignity; power; influence; empire.

The most servile flattery is lodged most easily in the grossest capacity; for their ordinary conceit draweth a yielding to *greatness*, and then have they not wit to discern the right degrees of duty. *Sidney.*

Farewell, a longing farewell to all my *greatness*.
Shakspeare.
So many
As will to *greatness* dedicate themselves. *Id.*
I beg your *greatness* not to give the law
In other realms; but beaten, to withdraw.
Dryden.
Approaching *greatness* met him with her charms
Of power and future state;
He shook her from his arms. *Id.*

Themistocles raised the Athenians to their *greatness* at sea, which he thought to be the true and constant interest of that commonwealth. *Swift.*

Swelling pride; affected state.

My lord would have you know, that it is not of pride or *greatness* that he cometh not aboard your ships. *Bacon.*

Merit; magnanimity; nobleness of mind.

Greatness of mind and nobleness their seat
Build in her loveliest. *Milton.*

Grandeur; state; magnificence.

Greatness with Timon dwells in such a draught,
As brings all Brobdignag before your thought.
Pope.

GREAT BRITAIN.

GREAT BRITAIN. In the article BRITAIN we shall be found to have introduced a general description of this important island, and to have traced its history from the remotest ages with which we are acquainted, to the period of the establishment of the Saxon kingdom of England, under Egbert. The article ENGLAND pursues the history of that country until the kingdoms of England and Scotland were united under the dominion of one sovereign, James I., and furnishes also the general statistical details, a statement of the rise and progress of the manufactures, present commerce, government, income, &c. of Great Britain. We have undertaken in the present article to complete the history of Great Britain, and to add a few statistical and miscellaneous details necessary for completing our picture of the existing state of the empire.

PART I.

HISTORY OF GREAT BRITAIN.

1. *Of the reigns of the House of Stuart to the death of Charles I.*—Queen Elizabeth, as we have stated, had expressly recognised the claim of her 'cousin of Scotland' to succeed to the throne; and few sovereigns ever assumed the regal authority with more general approbation, or greater hopes of a peaceable and happy reign. These hopes, however, were soon blasted; and the history of this monarch's reign consists of little more than a detail of his disputes with parliament. A minute account of these we cannot

here enter upon; it would afford but little gratification or instruction to our readers; but it is of importance to know their origin, as they were the primary causes of those events which were soon so conspicuous in the history of Great Britain, and which resulted in our ever memorable Revolution.

In the semi-barbarous ages, which preceded this period, the human mind, enervated by superstition and obscured by ignorance, seems to have resigned all pretensions to liberty, either religious or civil. Unlimited and uncontrolled despotism prevailed every where; and though in England some gleams of better principles of government, and of the dawn of better times appeared, the many examples of arbitrary power exerted by her sovereigns, queen Elizabeth herself not excepted, show that the English were very far from being a free people. An incontestable proof of this, and an evidence how little restraint the people could then lay upon the authority of the sovereign, is, that the proceedings of parliament were accounted, even by the members, of so little consequence, that they did not keep any records of them. It was not till the year 1607, four years after the accession of James, that parliamentary journals began to be regularly compiled, on the motion of Sir Edwin Sandys. Neither were the sessions of parliament regular, and little attention was paid to the choice or continuance of the members. In the reign of Elizabeth, and her predecessors, the sessions did not continue above the twelfth part so long as the vacations. It was then usual, after a parliament had been prolonged beyond one session, for the chancellor to exert a discretionary power of issuing new writs to supply the place of any members whom he judged incapable of attending; and, so late as the 23rd of Elizabeth, the commons, of their own accord, without the smallest court influence, and contrary to some former votes of their own, confirmed the chancellor's power in this respect. Nor did they farther assert their privileges, than to vote, that 'during the sitting of parliament there do not, at any time, any writ go out for the choosing or returning any member without the warrant of the house.'

Towards the end of the sixteenth or beginning of the seventeenth century, a great, but gradual mental revolution took place throughout all Europe. Arts and sciences beginning to flourish, commerce and navigation were greatly extended, and learning of all kinds began to diffuse itself. By more enlarged views, the love of freedom began, in Britain especially, to take place in the breasts of most people of education; and this was greatly promoted by an acquaintance with the ancient Greek and Latin historians. A patriotic spirit arose, and a desire of circumscribing the excessive prerogatives and arbitrary proceedings of the crown rapidly spread throughout the nation. Nor was this desire unreasonable, or ill-founded. During the last years of queen Elizabeth's reign, the commerce, navigation, and number of seamen in England, had sensibly decayed. A remonstrance from the Trinity House in 1602 says, that since 1588, the number of seamen and shipping had decreased about a third part. Every species of domestic industry was fettered by monopolists; all foreign trade, except that to France, was brought by exclusive companies into the hands of a few rapacious engrossers; and all prospect of future improvement in commerce was sacrificed to a little temporary advantage of the sovereign. These companies, arbitrarily erected, had carried their privileges so far, that almost all the trade of England centered in London; the customs of that port alone amounting to £110,000 a-year, while those of all the rest of the kingdom were only £17,000 And this trade of London was confined to about 200 citizens, who were easily enabled, by combining among themselves, to fix whatever price they pleased both on the exports and imports of the nation. The country was also burdened with wardships and purveyances. The latter arose from an old prerogative of the crown, by which the officers of the household were empowered to take, without consent of the owners, provisions for the king's family, and carts and horses for the removal of his baggage, upon paying a stated price for them. The king had also a power of sending any person, without his consent, on whatever message he pleased; and thus he could easily force any individual to pay him whatever money he chose, rather than be sent out of the country on a disagreeable errand. Money extorted from individuals, by this or any other method, was called a benevolence. The rising spirit of patriotism, which claimed a redress of these grievances, the severe government of Elizabeth had confined within very narrow bounds: but when James succeeded, being a foreign prince, less dreaded and less beloved, symptoms of a more free and independent spirit immediately appeared. Happily James neither perceived the alteration, nor had sufficient capacity to check its early advances. He had established in his own mind a speculative system of absolute government, which few of his subjects, and none but traitors and rebels, he thought, would make any scruple to admit; and considered himself as entitled to equal prerogatives with other European sovereigns. In his person he imagined all legal power to be centered by an hereditary and a divine right; nay, so fully was he persuaded that he was the absolute proprietor of his subjects, that in his speech to the parliament in 1621, he told them, that he 'wished them to have said, that, their privileges were derived from the grace and permission of him and his ancestors.' And when the same parliament protested that 'the liberties, franchises, privileges, and jurisdictions of parliament, are the ancient and undoubted birth-right and inheritance of the subjects of England,' he was so enraged, that, sending for the journals of the commons, he, with his own hand, before the council, tore out this protest, and ordered his reasons to be inserted in the council book. Such were the opposite dispositions of the prince and parliament, at the commencement of the Scottish line; dispositions just beginning to exist and to appear in parliament, but thoroughly established, and openly avowed on the part of the king, throughout his whole reign. The consequence was, that during this reign the prerogatives of the crown were violently and openly attacked; chiefly on the grounds of money and religion. The king's high

notions of the royal perogative made him imagine he had a right to whatever sums he pleased to demand; and his profusion dissipated in a short time the scanty supplies he could extort from the parliament. With regard to religion, the nation was at this time greatly divided between the rival claims of episcopalianism and puritanism. Though the severities of Elizabeth had almost totally suppressed the Papists, it had been otherwise with the Puritans. So much had they increased, by the very means which had diminished the number of Catholics, that no fewer than 750 clergymen of that persuasion signed an address to James on his accession. They hoped that the new king, having received his education in Scotland, and having always professed an attachment to the church established there, would at least abate the rigor of the laws enacted against them, and perhaps advance them to equal favor with their rivals. But in this they were mistaken. He had observed in their Scottish brethren a great inclination towards republicanism, and a zealous attachment to civil liberty. In the capacities both of monarch and theologian, he had experienced the little complaisance they were disposed to show him. They controlled his commands; disputed his tenets; and to his face, before the whole people, censured his conduct and behaviour. Though he had been obliged, therefore, while in Scotland, to court their favor, he treasured up on that account the stronger resentment against their principles, and was now determined to resist them with the whole weight of his authority. Hence he not only rejected their petition, but throughout his whole reign refused to relax in the least the severity of the laws against Protestant nonconformists.

The same feelings which occasioned in James such an aversion to the Puritans, prompted him to favor even the Papists, as being greater friends to despotism. In his youth he had been suspected of a bias towards the religion of the latter; when he ascended the throne of England, it is certain he often endeavoured to procure some mitigation of the laws against them. But in this he was constantly opposed by the parliament; and, indeed, the strong inclination shown by James to establish episcopacy in every corner of his dominions, tended much to alienate from him the minds of many of his subjects, especially in Scotland. In May, 1617, the king set out for that country expressly with the design of establishing episcopacy there. He did not, however, design to abolish presbytery entirely. He only proposed at first to establish the royal authority above the ecclesiastical, and to introduce some ceremonies into the public worship, such as kneeling at the sacrament, private communion, and baptism, confirmation, the observance of Christmas, &c. But he as little knew his own countrymen, on these points, as the English: every advance towards episcopacy gave the greatest discontent, and these trivial ceremonies were at once rejected as if they involved mortal sins. We cannot on the whole wonder that James should have been desirous of subjugating the rebellious and turbulent spirit of the Scottish clergy; and, on the other hand, considering the extreme weakness of this monarch's understanding, and that he imagined himself able to manage not only furious religionists, but even the most powerful foreign nations, with no other weapon than mere argumentation, we can as little wonder at his want of success.—In short, so far was James from being able to establish his royal authority above the ecclesiastical, that he found himself unable to introduce a single ceremony. He returned therefore with the mortification, not only of seeing his schemes entirely baffled with regard to Scotland, but of having disgusted even the few of that nation over whom religious prejudice did not prevail; and who, regarding the ceremonies so much insisted on by the king as trivial and insignificant, considered the national honor sacrificed in this attempt at a servile imitation of the worship practised in England. Equally bad success attended James when he attempted some opposition to the puritanical innovations in the latter country. He had observed, in his progress through the kingdom, that a Judaical observance of the Sunday gained ground; and that the people were thus debarred from recreations which contributed, as he thought, to their health and amusement. He now, therefore, issued a proclamation to allow, after divine service, all kinds of 'lawful games and exercises.' But this his subjects considered as an effort to introduce the utmost profaneness. In 1620 a bill was brought in by the commons for the more strict observance of the Sunday or 'sabbath,' and when one Shepherd opposed this bill, objecting to the appellation sabbath as puritanical, he was expelled the house by the suggestion of Mr. Pym. Such was the situation of religious affairs during this reign.

The first thing of political consequence, which transpired in it, was a conspiracy formed in the year of the king's accession to displace him, and bestow the kingdom on Arabella Stuart. Sir Walter Raleigh was said to have been concerned in this mysterious affair; for which he was tried, condemned without sufficient proof, and, after suffering thirteen years imprisonment in the tower, was executed out of complaisance to the Spaniards. Lord Gardenstone remarks, that 'James I. butchered Sir Walter without the form of a trial,' and censures Mr. Hume for attempting to vindicate James. See RALEIGH. In 1605 was discovered the famous gun-powder plot, the anniversary of which discovery has ever since been celebrated. Its origin is thus stated:—On the accession of James great expectations had been formed by the Catholics, that he would prove favorable to their religion; but, their hopes, as well as those of the Puritans, were disappointed. James expressed his intention of executing strictly the laws againt them, and of persevering in all the rigorous measures of queen Elizabeth. A plan of revenge was now, therefore, thought of by Robert Catesby, a gentleman of good parts, and of an ancient family. He communicated his mind to Percy, a descendant of the house of Northumberland, when the latter proposed to assassinate the king: but this seemed to Catesby a very inadequate object. He told Percy, that the king would be succeeded by his children, who would also inherit his maxims of government, and urged that if even the whole royal family

were destroyed, the parliament, nobility, and gentry, who were infected with the same heresy, would raise another protestant prince to the throne. To serve any good purpose they must he insisted destroy, at one blow, the king, the royal family, the lords and commons; and bury all their enemies in a common ruin. This terrible scheme being approved of, it was resolved to effect it by springing a mine under both houses of parliament. Thomas Winter was sent over to Flanders in quest of Fawkes, an officer in the Spanish service. All the conspirators were bound to secrecy by the most solemn oaths, accompanied with the sacrament; and, so completely had superstition effaced every principle of humanity from their minds, that not one of them seems to have entertained the smallest compunction for the cruel massacre they intended. Some indeed were startled at the thoughts of destroying a number of Catholics, who must necessarily be present as spectators, or attendants on the king. But Tesmond a Jesuit, and Garnet superior of that order in England, are said to have removed these scruples, by showing that the interests of religion required in this case the sacrifice of the innocent with the guilty. This was in the spring and summer of 1604; when the conspirators hired a house in Percy's name, adjoining to that in which the parliament was to assemble. Towards the end of that year they began to pierce the wall of the house, in order to get in below that where the parliament was to sit; but found, while in the midst of their task, that a magazine of coals had been kept in a vault immediately under the house; and that the coals were then selling off, after which the vault would be let. It was therefore hired by Percy; thirty-six barrels of powder lodged in it; the whole covered up with faggots and billets; the doors of the cellar boldly flung open; and every body admitted as if it contained nothing dangerous. Being now, as they thought, assured of success, the conspirators began to plan the remaining part of their enterprise. The king, the queen, and prince Henry, were expected to be present at the opening of the parliament: and the duke of Albany it was resolved that Percy should seize or murder. The princess Elizabeth, likewise a child, was kept at lord Harrington's house in Warwickshire; and some others of the conspirators engaged to assemble their friends on pretence of a hunting match, when they were to seize that princess, and immediately proclaim her queen. The day so long wished for at last approached; the dreadful scheme, though communicated to more than twenty persons, had been religiously kept for nearly a year and a half; and nothing could be foreseen which could possibly prevent its success. Ten days before the meeting of parliament, however, lord Monteagle, a Catholic, son to lord Morley, received the following letter, which had been delivered to his servant by an unknown hand:—'My lord, out of the love I bear to some of your friends, I have a care for your preservation. Therefore I would advise you, as you tender your life, to devise some excuse to shift off your attendance on this parliament. For God and man have determined to punish the wickedness of the times. And think not slightly of this advertisement; but retire yourself into the country, where you may expect the event in safety. For, though there be no appearance of any stir, yet I say, they will receive a terrible blow this parliament; and yet they shall not see who hurts them. This counsel is not to be contemned, because it may do you good, and can do you no harm; for the danger is over as soon as you have burned this letter. And I hope God will give you the grace to make use of it, to whose holy protection I commend you.' Though Monteagle imagined this letter to be only designed to frighten him, he carried it to lord Salisbury, secretary of state; who laid it before the king. James regarded it in a more serious light. He at once concluded that a design was entertained of blowing up the parliament house with gunpowder, and it was thought advisable to search the vaults below. This, however, was wisely delayed till the day before the meeting of parliament; when the lord chamberlain, observing the great piles of wood and faggots which lay in the vault under the upper house, resolved to make a further search. About midnight, Sir Thomas Knevit, a justice of peace, arrived with proper attendants; and, finding Fawkes arrived at the door of the vault, he immediately seized him, and, turning over the faggots, discovered the gunpowder. Matches and every thing necessary for setting fire to the train were also taken on the person of Fawkes, who, now in despair, expressed the utmost regret, that he had lost the opportunity of firing the powder at once, and of sweetening his own death by that of his enemies. For two or three days he manifested the same obstinacy, but, being confined in the tower, and the rack shown to him, his courage failed, and he made a full discovery of the conspirators. Catesby, Percy, and others of them, however, on hearing that Fawkes was arrested, hurried into Warwickshire; where Sir Everard Digby, imagining that the confederates had succeeded, was already in arms to seize the princess Elizabeth. But the country people raised by the sheriffs soon surrounded the conspirators and their attendants to the number of about eighty; and, though they resolved to sell their lives as dearly as possible, some of their powder took fire, and disabled them from defending themselves. The people then rushed in upon them. Percy and Catesby were killed with one shot. Digby, Rookwood, Winter, and others, being taken prisoners, were tried, confessed their guilt, and died, together with Garnet, by the hands of the common executioner. The lords Stourton and Mordaunt, two Catholics, were fined, in the sums of £4000, and £10,000 respectively, by the star-chamber; their absence from parliament having occasioned a suspicion of their being acquainted with the conspiracy: and the earl of Northumberland detained several years a prisoner in the tower; because, among other grounds of suspicion, he had admitted Percy into the number of gentlemen pensioners, without his taking the requisite oaths. He also was condemned to pay a fine of £30,000.

In 1612 James appears in his most advantageous point of view, namely, as a legislator of

Ireland In this work he proceeded by a steady, regular, and well-concerted plan. He began with abolishing the ancient Irish customs, which supplied the place of laws, and which were exceedingly barbarous and absurd. By the Brehon laws every crime, however enormous, was punished, not with death, but by a fine. Murder itself was compensated in this way. Every one had a value affixed to him, called his eric; and whoever was able to pay this, might kill him when he pleased. To the slight offences of oppression, extortion, &c., no penalty was affixed, nor could any redress for them be obtained. By the custom of Gavelkind, upon the death of any person, his land was divided among all the males of the sept or family, both legitimate and illegitimate; and after partition was made, if any of the sept died, his portion was not shared out among his sons, but the chieftain at his discretion made a new partition of the lands. As no man, by this custom, enjoyed a fixed property in land; to build, cultivate, or improve, was considered as lost labor. Their chieftains were established by election, or rather by force. Their authority was absolute; and, notwithstanding certain lands were assigned to the office, its chief profit resulted from exaction and assessments, for which there was no fixed law. After abolishing these customs, and substituting English laws in their place, James took the natives under his protection, declared them free citizens, and proceeded to govern them by a regular administration. A sufficient army was maintained, its discipline inspected, and its pay transmitted from England. When O'Doghartie raised an insurrection, a reinforcement was sent over, and the rebellion immediately extinguished. All minds being first quieted by a universal indemnity, circuits were now established, justice administered, and crimes of every kind severely punished. As the Irish had been universally engaged in a rebellion against Elizabeth, a resignation of all the separate jurisdictions formerly granted them was rigorously exacted; a resignation of private estates was even required; and, when they were restored, the proprietors received them under such conditions as might prevent future tyranny and oppression. The whole province of Ulster having fallen to the crown, by the attainder of rebels, a company was established in London for planting new colonies in that fertile country. The land being divided into shares, of which the largest did not exceed 2000 acres: tenants were brought over from England and Scotland: the Irish were removed from the hills, and settled in the open country; husbandry and the arts were taught them; and thus Ulster, from being the most wild and disorderly province in Ireland, soon became the most civilised and best cultivated.

This year Henry, prince of Wales, died suddenly on the 6th of November, not without strong suspicions of poison. On opening his body, however, no symptoms of poison appeared; but his death diffused a universal grief throughout the nation, as he was reckoned a prince of extraordinary accomplishments. But the marriage of the princess Elizabeth with Frederic elector palatine, which was celebrated February 14th, 1613, served to dissipate the national grief. This marriage, however, in the event, proved unhappy to the king, as well as to his son-in-law. The elector, trusting to so great an alliance, engaged in enterprises beyond his strength; and James, not being able, and perhaps not willing, to assist him, lost entirely the affections of his people. This particularly appeared in the year 1619. At this time the states of Bohemia having taken arms against the emperor Matthias, in defence of the Protestant religion, continued their revolt against his successor Ferdinand II., and, being alarmed at his preparations against them, made an offer of their crown to the elector palatine, who, stimulated by ambition, at once accepted the offer, and marched all his forces into Bohemia. But his affairs soon drew to an unfortunate crisis. Being defeated, in the great and decisive battle of Prague, he fled with his family into Holland; and Spinola the Spanish general invested and reduced the palatinate, every new conquest of the Catholics being attended with persecutions against the Protestants. At this news the religious zeal of the English was inflamed to the highest degree. The sufferings of their Protestant brethren, in Germany, excited their sympathy and resentment; and the inactive spirit shown by James was loudly exclaimed against.

Not having been, however, consulted by his son-in-law, James from the very first had denied his title of king of Bohemia, and forbad him to be prayed for in the churches under that appellation. He was also on other accounts extremely averse to come to a rupture with the king of Spain. The eldest daughter of that monarch had been indirectly offered to prince Henry: and even after James, in consequence of his alliance with the Dutch, had marched 4000 men to the assistance of the Protestants, the Spanish ambassador, Gondomar, made, in 1618, an offer of the king's second daughter to prince Charles. Of this match James had entertained great hopes, not only as a means of relieving his own necessities, but of recovering the palatinate for his son-in-law. But on the 14th November, 1621, the commons framed a remonstrance with him upon these subjects. They represented, that the enormous growth of the Austrian power threatened the liberties of Europe; that the progress of the Catholic religion in England bred the most melancholy apprehensions, lest it should again acquire an ascendancy; the indulgence of his majesty towards the professors of that religion having encouraged their insolence; and, above all, that the Spanish match elevated them so far as to hope for an entire toleration, if not a final re-establishment. They therefore entreated his majesty, that he would immediately undertake the defence of the palatinate, and maintain it by force of arms; that he would turn his sword against Spain, whose armies and treasures were the chief support of the Catholic interest in Europe; that he would enter into no negociation for the marriage of his son but with a Protestant princess; that the children of popish recusants should be taken from their parents, and committed to the care of Protestant teachers and schoolmasters; and that the fines and con-

fiscations to which the Catholics by law were liable, should be levied with the utmost severity. The king, who was then at Newmarket, hearing of the intended remonstrance, wrote a letter to the speaker, in which he sharply rebuked the house for debating on matters far above their reach and capacity; and strictly forbad them to meddle with any thing that regarded his government or deep matters of state, and especially not to touch on his son's marriage with the Spanish princess. Upon this the commons framed a new remonstrance, in which they asserted their right of debating on all matters of government, and that they possessed entire freedom of speech in their debates. The king replied, that their remonstrance was more like a denunciation of war, than an address of dutiful subjects; and their pretension to enquire into all state affairs, without exception, was such a plenipotence as none of their predecessors, even during the reigns of the weakest princes, had ever pretended to; that public transactions depended on a complication of views and intelligence, with which they were entirely unacquainted; that they could not show their wisdom better, as well as duty, than by keeping within their proper sphere; and that in any business which depended on his prerogative, they had no title to interpose with their advice, unless when he pleased to ask it, &c. In return, the commons framed the protestation already mentioned, which the king tore out of their journals, and soon after dissolved the parliament.

The leading members of the house, Sir Edward Coke and Sir Robert Phillips, were now committed to the tower: three others, Selden, Pym, and Mallory, to other prisons; and some others, as a lighter punishment, were sent on business into Ireland. Sir John Saville, however, a powerful man in the house of commons, and a zealous opposer of the court, was made the comptroller of the household, a privy counsellor, and soon after a baron. This event is memorable, being the first instance of an English king advancing a man on account of his parliamentary interest. But in vain did James, by reiterated proclamations, forbid his subjects to discuss the public affairs and measures. His proclamations served rather to inflame the curiosity of the public. In every company and society the late transactions became the subject of argument and debate.

For five years James continued the dupe of the court of Spain. At last he resolved, if possible, to remove every obstacle to the Spanish alliance. He issued orders for discharging all popish recusants who were imprisoned; and it was daily apprehended, that he would forbid, for the future, the execution of the penal laws against them: apologising for this conduct, by pretending that it would procure from foreign princes a toleration for Protestants. At any rate it forwarded, for a while, James's end with regard to the marriage. The earl of Bristol, ambassador at the court of Spain, being fully convinced of the Spanish sincerity, wrote him word that the Spanish princess was to bring with her a fortune of £600,000; and that he considered this match as an infallible prelude to the palatine's restoration. Nothing was now therefore wanting but a dispensation from Rome; and the duke of Buckingham, a new favorite at court, persuaded the prince to undertake a journey to Madrid. They travelled through France in disguise; and, under the assumed names of John and Thomas Smith, were introduced at the French court, where Charles first saw his future wife Henrietta. On their arrival at Madrid, every body was surprised by a step so little usual among princes. The Spanish monarch, however, expressed the utmost gratification at the visit; gave the prince a golden key which opened all his apartments, that he might, without introduction, have access to him at all hours; ordered his prime minister, Olivarez, never to be covered in his presence; and proclaimed a general gaol delivery as an expression of the public joy. The infanta, however, was only seen by her lover in public; and the pope, hearing of Charles's arrival, tacked some new clauses to the dispensation, which it became necessary to transmit to London. The treaty which was made public, chiefly regarded the exercise of the Catholic religion by the infanta; and stipulated that the children of the marriage should be educated by the princess till they were ten years of age. There were also some private articles sworn to by James, which could not have been made public without violent murmurs. A suspension of the penal laws against the English Catholics was promised, as likewise a repeal of them in parliament, and a toleration for the exercise of that religion in private.

Meanwhile, pope Gregory XV., who granted the dispensation, died; and Urban VIII. succeeded him. Upon this event, the nuncio refused to deliver the dispensation till it should be renewed by Urban. This the pontiff delayed, in hopes that, during the prince's residence in Spain, some method might be found of effecting his conversion. But the king of England, as well as the prince, had become impatient at the delay: Charles obtained leave to return; and Philip graced his departure with all the circumstances of civility and respect which had attended his arrival.

Buckingham, however, before their departure from Madrid, is said to have decided the prince's mind against the match. On their arrival in London, therefore, the former assumed the entire direction of the negociation; and made it his business to seek pretences for a breach of treaty. At last, after many artifices to delay or prevent the espousals, Bristol received positive orders not to deliver the proxy which had been left in his hands, till security was given for the full restitution of the palatinate. Philip understood this language: but, being determined to throw the whole blame of the rupture on the English, he delivered into Bristol's hand a written promise, by which he bound himself to procure the restoration of the palatinate, either by persuasion or by every other possible means; and, when he found that this concession gave no satisfaction, he ordered the infanta to lay aside the title of Princess of Wales, which she bore after the arrival of the dispensation from Rome, and to drop the study of the English language. As he knew that the counsels, which now governed the court of England, would not stop at the breach of the

marriage treaty, he also immediately ordered preparations for war. A more successful match for prince Charles was soon after negociated with Henrietta, daughter of Henry IV.; the king of France demanding only the same terms that had been offered to the court of Spain. In an article of this treaty of marriage, it was, however, stipulated, that the education of the children till the age of thirteen should belong to the princess; a concession which gave ultimately to the house of Stuart that unfortunate bias towards popery, which afterwards proved their ruin.

James, being now deprived of every other hope of relieving his son-in-law but by force of arms, declared war against Spain and the emperor, for the recovery of the palatinate: 6000 men were sent over into Holland to assist prince Maurice against those powers; the people were every where elated at the courage of their king, and were satisfied with any war which was to exterminate the papists. This army was followed by another consisting of 12,000 men, commanded by count Mansfeldt; and the court of France promised its assistance. But the English were disappointed in all their views: the troops, being embarked at Dover, upon sailing to Calais, found no orders for their admission. They were obliged, after waiting for some time, to sail towards Zealand, where no proper measures were yet consulted for their disembarkation; and, meanwhile, a pestilential disorder crept in among them, of which half the army died. Whether this failure of his most cherished plans had any effect on the king's constitution, is uncertain; but he was soon after seized with a tertian ague, which put an end to his life on the 27th of March, 1625, after having lived fifty-nine years, and reigned over England twenty-two.

James was succeeded by his son Charles I., who was exceedingly popular with his subjects, for breaking off the match with the Spanish princess, and procuring the rupture with the house of Austria. Young and inexperienced, he regarded these praises as sincere; and was so impatient, therefore, to assemble the great council of the nation, that he would gladly, for the sake of despatch, have called together the same parliament which sat under his father. But, being told that such a measure was unusual, he issued writs for summoning a new parliament on the 7th of May; and it was not without regret that the arrival of the princess Henrietta, whom he had espoused by proxy, obliged him to delay, by repeated prorogations, their meeting till the 18th of June. Charles inherited his father's great pecuniary necessities, his high notions of the royal prerogative, and a violent attachment to episcopacy. At his accession, believing his subjects to be in perfect friendship with him, he resolved that their bounty should be entirely unasked, and the entire effect of mutual confidence. Accordingly, his first speech to the parliament was full of simplicity and cordiality. He lightly mentioned the occasion he had for supply. He employed no intrigue to influence the suffrages of the members. He would not even allow the officers of the crown, who had seats in the house, to mention any particular sum which he had occasion for; but trusted entirely to the wisdom and affection of his parliament, 'who perfectly well knew his circumstances.' The return made by the commons was by no means suitable to this generous behaviour. They knew that all the money granted by the last parliament had been spent on military and naval preparations; and that great anticipations were likewise made of the revenues of the crown. They were not ignorant that Charles was loaded with a debt contracted by his father, who had borrowed money both from foreign princes and from his own subjects. They were sensible that the war was the result of their own importunate intreaties, and that they had solemnly engaged to support their sovereign in carrying it on. Nor were they unacquainted with the difficulty of military enterprises directed against the whole house of Austria; against the king of Spain, the richest prince in Europe; and against the emperor Ferdinand, hitherto the most fortunate monarch of the age. But, to answer all these important ends, they thought proper only to confer on the king a supply of £112,000. When Charles, with great moderation, represented, in the most explicit manner, the necessity there was for a larger supply, urging, among other pleas, that, if he now met with kind and dutiful usage, it would endear him to the use of parliaments, and for ever preserve an entire harmony between him and his people, the commons remained inexorable; they even refused the addition of $\frac{2}{15}$ths to the former supply. Instead of this they renewed their complaints against the growth of popery; demanding a strict execution of the penal laws against the Catholics; remonstrated against some late pardons granted to priests; and attacked Montague, one of the king's chaplains, on account of a book which he had lately composed. Charles gave them a gracious and complaisant answer; but was firmly resolved to abate somewhat of the rigorous laws against that unfortunate party, which his engagements with France absolutely required.

No measure could be more disgustful to his subjects than this resolution. The Puritans had continued to gain ground during the whole reign of James, and now formed the majority of the hous of commons; in consequence of which, petitions were presented to the king for replacing such able clergymen as had been silenced for want of conformity to the ceremonies. They also enacted laws for the strict observance of Sunday. In consequence of this behaviour in Charles's first parliament, it was dissolved on the 12th of August, 1625, and a new one called, February 6th, 1626. During this interval, Charles had been obliged to borrow from his subjects on privy seals; the advantage of which was but a small compensation for the disgust it occasioned. By means, however, of that supply, and some other expedients, he was enabled to equip his fleet, though with difficulty. It was designed against Spain, but performed nothing worth notice, and its bad success increased the clamors against the court. Charles's second parliament adopted the same views with the former. They, however, voted a supply of three subsidies (£168,000), and $\frac{3}{15}$ths; but the passing

this vote into a law was reserved until the end of the session, that they might have an opportunity of forcing the king to make concessions. This harsh conduct was greatly resented by Charles; but he found himself obliged to submit. In the mean time they attacked the duke of Buckingham, who was become generally obnoxious; and was impeached by the earl of Bristol, on account of his conduct with respect to the Spanish negociation. The earl's impeachment, however, was entirely overlooked, and the commons were able to prove nothing otherwise of any consequence against him. The king, imagining that Buckingham's greatest crime was the having been so much in favor with his sovereign, commanded the house expressly not to meddle with his minister, but to finish, in a few days, the bill they had begun for the subsidies; otherwise they must expect to sit no longer. Suggestions of this kind had a bad effect; and, when the king proceeded further to throw into prison two members of the house who had managed the impeachment against Buckingham, the commons declared that they would proceed no farther till they had satisfaction in their privileges. Charles alleged, as the reason of this measure, certain seditious expressions, which, he said, had, in their accusation of the duke, dropped from these members. Upon enquiry it appeared that no such expressions had been used, and the members were released. Soon after, the house of lords, moved by the example of the commons, claimed liberty for the earl of Arundel, who had been lately confined in the tower, and, after many fruitless evasions, the king was obliged, however ungraciously, to comply. The next attack made by the commons, had it succeeded, would have reduced the king to an absolute dependence on parliament. They were preparing a remonstrance against the levying of tonnage and poundage. This article, together with the new impositions laid on merchandise by James, constituted nearly one-half of the crown revenues; and, after having gained this point, they were to petition, or rather to have commanded the king to remove Buckingham from his presence and councils. The king, however, being alarmed at the yoke they were preparing for him, dissolved this second parliament, June 15th, 1626.

Charles, having now made such a breach with his parliament as there was no hope of repairing, was obliged to exercise every branch of his prerogative to supply himself with money. A commission was granted to compound with the Catholics, and agree for dispensing with the penal laws. By this expedient the king, indeed, filled his coffers, but gave general disgust. From the nobility he desired assistance; from the city he required a loan of £100,000. The former contributed slowly: but the latter, after many excuses, gave, at last, a flat denial. To equip a fleet, a distribution, by order of the council, was made to all the maritime towns, and each of them was required, with the assistance of the adjacent counties, to arm so many vessels. London was rated at twenty ships; and this is the first appearance, in Charles's reign, of ship-money; a taxation which had once been imposed by Elizabeth, but which, when carried some steps farther by Charles, produced the most violent discontents. These methods of supply were carried on with some moderation, till news arrived of the king of Denmark being totally defeated by count Tilly the imperial general; but, supplies having then become more than ever necessary, it was suggested in council, that the most equal and convenient method of obtaining them was by a general loan from the subject, according as every man was assessed in the rolls of the last subsidy. That precise sum was required which each would have paid, had the vote of four subsidies been passed into a law: care, however, was taken that the sums thus exacted were not to be called subsidies but loans. Many throughout England now refused these loans, and some were even active in encouraging their neighbours to insist upon their common rights and privileges. By warrant of the council, these were thrown into prison. Most of them patiently submitted to confinement, or applied by petition to the king, who commonly released them. Five gentlemen, however, Sir Thomas Darnel, Sir John Corbet, Sir Walter Earl, Sir John Haveningham, and Sir Edward Hampden, demanded release, not as a favor from the court, but as their due by the laws of their country. No particular cause was assigned for their commitment. The special command of the king and council was alone pleaded. And it was alleged that, by law, this was not sufficient reason for refusing bail or releasement to the prisoners. The question was brought to a solemn trial before the court of king's bench; and the whole kingdom was attentive to the issue. By the debates on this subject it appeared, that personal liberty had been secured by no less than six different statutes, and by an article in magna charta itself. It appeared, that, in times of turbulence and sedition, the kings had infringed these laws; and of this also many examples were produced. The difficulty then lay to determine when such violent measures were necessary; but of that the court pretended to be the supreme judge. As it was legal, therefore, that these five gentlemen should plead the statute, by which they might demand bail, so it was expedient in the court to remand them to prison, without determining on the necessity of taking bail for the present. This was a cruel evasion of justice, and, in fact, satisfied neither party. The court insisted that no bail could be taken; the country exclaimed that the prisoners ought to be set free.

While the king was thus embroiled at home, he rashly engaged in a war with France, a kingdom with which he had but lately formed the most natural alliance. Historians generally agree that this war proceeded from the rivalship of the duke of Buckingham and cardinal Richelieu; both of whom aspired at the affections of the queen of France. However this may be, war was declared against France; and Charles was taught to hope, that hostilities with that kingdom would be the surest means of procuring tranquillity at home. The success of this war was proportionable to the wisdom with which it was commenced. Buckingham was appointed com-

mander; and, being entirely unacquainted both with the sea and land service, he managed to lose two-thirds of his army, and returned in total discredit both as an admiral and general. The discontents in England now rose to such a height, that there was reason to apprehend an *insurrection*. Charles was also reduced to the greatest distress for want of money. That which he had levied by virtue of his prerogative came in very slowly, and it was dangerous to renew the experiment, on account of the ill-humor of the nation. A third parliament was therefore called, March 17th, 1628; whom Charles told, at the beginning of the session, that 'if they should not do their duties, in contributing to the necessities of the state, he must, in discharge of his conscience, use those other *means* which God had put into his hands, in order to save that which the follies of some particular men might otherwise put in danger.' They began with voting against arbitrary imprisonments and forced loans; after which five subsidies (£280,000) were voted to the king; a sum with which Charles, though much inferior to his wants, declared himself well satisfied. The commons, however, resolved not to pass this vote into a law, before they had obtained from the king a sufficient security, that their liberties *should* be no longer violated. They resolved upon a petition of right, in which they recapitulated all the unlawful exertions of the prerogative. The chief grievances complained of were forced loans, benevolences, taxes without consent of parliament, arbitrary imprisonments, billeting soldiers, and martial law. They pretended not to any unusual power or privileges; *nor* did they intend to infringe the royal prerogative, they said, in any respect: they aimed only at securing those rights and privileges *derived* from their ancestors. But the king now began plainly to aim at nothing less than absolute power. This petition he did his utmost to evade, by repeated messages to the house, in which he always offered his royal word, that there should be no more infringements of the liberty of the subject. These messages, however, had no effect on the commons: they knew *how* insufficient such promises were, without further security. The petition, therefore, at last passed both houses, as embodying the law of *those* questions, and nothing was wanting but the royal assent to give it legal force. The king accordingly came to the house of peers, sent for the commons, and, being seated in the chair of state, the petition was read to him. In answer to it, he said, 'The king willeth that right be done according to the laws and customs of the realm, and that the statutes be put into execution; that his subjects may have no cause to complain of any wrong or oppression contrary to their just rights and liberties, to the preservation whereof he holds himself in conscience as much obliged as of his own prerogative.' This equivocal answer was highly resented by the commons. They first directed their indignation against a Dr. Manwaring, who had preached a sermon, and at the special command of the king, which was found to contain doctrines subversive of civil liberty. It taught, that though property was commonly lodged in the subject, yet, whenever any exigency required supply, all property was transferred to the sovereign; that the consent of parliament was not necessary for the imposition of taxes; and that the divine laws required compliance with every demand, however irregular, which the prince should make upon his subjects. For these doctrines Manwaring was sentenced to be imprisoned during the pleasure of the house; to be fined £1000 to the king; make submission and acknowledgement for his offence; be suspended three years; be incapable of holding any ecclesiastical dignity or secular office; and that his book be called in and burnt. No sooner, however, was the session ended, than Manwaring received a pardon, and was promoted to a living of considerable value. Some years afterwards he was advanced to the see of St. Asaph. At last, the king, seeing it was impossible to carry his point, yielded to the importunities of parliament. He came to the house of peers, and pronouncing the usual form of words, 'Let it be law as is desired,' gave full sanction and authority to the petition. The house resounded with acclamations, and the bill for five subsidies was immediately passed.

The commons, however, were not yet satisfied; they began to attack the duke of Buckingham, against whom they were implacable; they also asserted, that the levying of tonnage and poundage without consent of parliament was a palpable violation of the ancient liberties of the people, and an open infringement of the petition of right so lately granted. The king, to prevent a remonstrance on that subject, suddenly prorogued the parliament, June 26th, 1628.

The commons were soon delivered from their enemy Buckingham; who was murdered on the 23d of August following, by one Felton who had formerly served under him. The king did not appear much concerned at his death, but retained an affection for his family. He desired also that Felton might be tortured, in order to extort from him a discovery of his accomplices; but the judges very properly declared, that, though that practice had been once common, it was altogether illegal. In 1629 the contentions between the king and his parliament were renewed. The great article on which the commons broke with their sovereign, and which finally created in him a disgust at all parliaments, was their claim with regard to tonnage and poundage. The dispute was, whether this tax could be levied without consent of parliament or not. Charles, supported by multitudes of precedents, maintained that it might; and the parliament, in consequence of their petition of right, asserted that it could not, and were resolved to support their rights. They began with summoning before them the officers of the custom-house, to give an account by what authority they had seized the goods of those merchants, who had refused to pay the duties The barons of exchequer were questioned with regard to their decrees on that head; and the sheriff of London was committed to the Tower for supporting the officers of the custom-house The goods of Rolles, a merchant, and member of the house, being seized for his refusal to pay

the duties, complaints were made of this violence, as a flagrant breach of privilege. Charles, on the other hand, supported his officers; and the quarrel between him and the commons became every day more virulent. Sir John Elliot framed a remonstrance against tonnage and poundage, which he offered to the clerk to read; but it was refused, and he then read it himself. The question being called for, the speaker Sir John Finch said, that he had a command from the king to adjourn, and to put no question; upon which he rose and left the chair. The whole house was in an uproar; the speaker was pushed back into the chair, and forcibly held in it, till a short remonstrance was formed, which was instantaneously passed by acclamation. Religious feelings and controversies also mingled with all this. Papists and Arminians were declared capital enemies to the commonwealth, and those who levied tonnage and poundage were branded with the same epithet. Even the merchants, who should voluntarily pay these duties, were called betrayers of English liberty, and public enemies. The doors being locked, the gentleman usher of the house of lords, who was sent by the king, could get no admittance till this remonstrance was finished. By the king's order he took the mace from the table, which put an end to their proceedings, and on the 10th of March the parliament was dissolved, and some of the members imprisoned.

Charles, being now disgusted with parliaments, firmly resolved to call no more; but, finding himself destitute of resources, was obliged to make peace with the two powers with whom he was at war. A treaty was signed with France on the 14th of April, and another with Spain on the 5th of November, 1630. As if, however, resolved on his own ruin, and to lose the small degree of affection towards him which remained among his subjects, Charles now began to make innovations in religion. Archbishop Laud had obtained a prodigious ascendancy over him; and, by his superstitious attachment to foolish ceremonies, led him into a conduct that proved fatal to himself and to the kingdom. He chose this time, of all others the most inauspicious, for attempting to renew the ceremonies of the fourth and fifth centuries, and so openly were many of the Popish tenets espoused, that not only the Puritans believed the church of England to be relapsing fast into that superstition, but the court of Rome itself entertained hopes of regaining its authority. Laud was actually offered, it is said, a cardinal's hat. See LAUD. He exacted the old and superstitious veneration for the sacerdotal character, and implicit submission to the creeds and decrees of synods and councils; and enjoined great pomp and ceremony in worship. Orders were given, that the communion table should be removed from the middle of the area, where it had hitherto stood in all churches except cathedrals, to the east end; and that it should be railed in, and denominated an altar. All kinds of ornaments, especially pictures, were introduced. The crucifix, too, was not omitted. In return for Charles's favor, Laud and his followers took care to magnify on every occasion the regal authority, and to treat with the utmost disdain all puritanical pretensions to civil and religious liberty. In the star chamber and high commission both the church and king found a ready instrument to suppress the rising spirit of liberty. Tonnage and poundage were continued to be levied by royal authority alone. The former arbitrary impositions were still exacted, and new impositions laid upon different kinds of merchandise. The custom-house officers received orders from the council to enter into any house, warehouse, or cellar; to search any trunk or chest; and to break any bulk whatever, in default of the payment of customs. In order to exercise the militia, each county by an edict of the council was assessed in a certain sum for maintaining a muster-master appointed for that service. Compositions were now again openly made with rescusants, and the Popish religion afforded a regular branch of revenue. A commission was also granted for compounding with such as possessed crown lands on defective titles; and on this pretence considerable sums of money were exacted of the people.

While the English were thus driven to the utmost discontent, and almost ready to break out into rebellion, Charles thought proper to attempt the establishment of episcopacy in Scotland. The canons for erecting a new ecclesiastical jurisdiction were promulgated in 1635, and received without much outward opposition; but when the first reading of the liturgy was attempted in the cathedral church of St. Giles, Edinburgh, in 1637, such a tumult was produced, that it was not thought safe to repeat the experiment. A universal combination against the religious innovations began immediately to take place; and to the proclamation of Charles, the nobility, gentry, and ministers, opposed the celebrated production of the Covenant. This consisted of a renunciation of Popery, formerly signed by James in his youth, and filled with many virulent invectives against that party. A bond of union followed, by which the subscribers obliged themselves to resist all religious innovations, and to defend each other against all opposition. It was subscribed by people of all ranks and conditions. The king now began to be alarmed. He sent the marquis of Hamilton, as commissioner, to treat with the covenanters; and he required that obligation to be renounced and recalled. In answer to this demand the covenanters told him, they would sooner renounce their baptism! and invited the commissioner himself to sign it. Hamilton returned to London; made another fruitless journey with new concessions to Edinburgh; returned again to London, and was immediately sent back with still greater concessions. The king was now willing to abolish entirely the canons, the liturgy, and the high commission court; he even resolved to limit extremely the power of the bishops, and was content if on any terms he could retain that order in the church of Scotland. To ensure all these gracious offers, he gave Hamilton authority to summon first an assembly, and then a parliament, where every grievance should be redressed. The offer of an assembly and a parliament, in which they expected to be entirely masters, was very willingly embraced by the

covenanters. When they found, however, that Charles's proposal of a new covenant was only meant to weaken and divide them, they received it with the utmost detestation; and proceeded in their own way to model the assembly. It met at Glasgow in 1638. A firm determination had been entered into of utterly abolishing episcopacy; and, as a preparative to it, there was laid before the presbytery of Edinburgh, and solemnly read in all the churches of the kingdom, an accusation against the bishops, as guilty of heresy, simony, bribery, perjury, cheating, adultery, &c. &c. The bishops sent in a protest, declining the authority of the assembly; the commissioner too protested against that court, as illegally constituted and elected; and, in his majesty's name, dissolved it. This measure was foreseen, and little regarded. The court still continued to sit; and all the acts of assembly, from the accession of James VI. to the crown of England, were declared null and invalid. Thus the whole fabric which James and Charles, in a long course of years, had been rearing with much care and policy, fell at once to the ground. The covenant likewise was ordered to be signed by every one, under pain of excommunication.

In 1639 the covenanters prepared in earnest for war. The earl of Argyle, though he long seemed to temporise, at last embraced their party, which the earls of Rothes, Cassilis, Montrose, Lothian, the lords Lindesay, Loudon, Yester, and Balmerino, also joined. Charles, on the other hand, was not deficient in his endeavours to oppose this formidable combination. By a system of rigid economy he had not only paid all the debts contracted in the French and Spanish wars, but had amassed a sum of £200,000, which he had reserved for any sudden exigency. The queen had great interest with the Catholics; and she easily persuaded them to give large contributions, as a mark of their duty to the king. Thus a considerably supply was gained, and the king's fleet became formidable. Having put 5000 land forces on board, he intrusted it to the marquis of Hamilton, who had orders to sail to the frith of Forth, while an army was levied of nearly 20,000 foot and 3000 horse; and put under the command of the earl of Arundel. The earl of Essex, a man of strict honor, and extremely popular, especially among the soldiery, was appointed lieutenant general; and the earl of Holland was general of the horse. The king himself joined the army, and summoned all the peers of England to attend him. The whole had the appearance of a splendid court rather than a military armament, and in this array the camp arrived at Berwick.

So prudent were the Scottish leaders that they immediately sent very submissive messages to the king, and craved leave to be admitted to a treaty. Charles, as usual, took the worst course. He concluded a sudden pacification, in which it was stipulated that he should withdraw his fleet and army; that within forty-eight hours the Scots should dismiss their forces; that the king's forts should be restored to him; his authority be acknowledged; and a general assembly and parliament be immediately summoned, to settle all differences. The peace, however, was not of long duration. Charles could not prevail on himself to abandon the cause of episcopacy: the assembly, on the other hand, proceeded with zeal and firmness, and voted it to be unlawful in the church of Scotland. The parliament also, which sat after the assembly, adopted measures which tended to diminish the civil power of the monarch; and, what probably affected Charles still more, they were proceeding to ratify the acts o assembly, when, by the king's orders, Traquaire the commissioner prorogued them. On account of these proceedings, which might have been easily foreseen, war was recommenced the same year.

No sooner had Charles concluded the peace than he found himself obliged to disband his army, on account of his want of money; and, as the soldiers had been held together merely by mercenary views, it was not possible, without great trouble, expense, and loss of time, to reassemble them. On the contrary, the covenanters, in dismissing their troops, had been careful to preserve nothing but the appearance of a pacification. The soldiers were warned not to think the nation secure from an English invasion; and the religious zeal which animated all ranks of men made them immediately fly to their standards, as soon as the trumpet was sounded by their spiritual and temporal leaders. When, in 1640, the king drew an army together, finding himself unable to support them, he was obliged to call a parliament, after an intermission of about eleven years. He pressed them for money, and they insisted on their grievances, till a dissolution ensued. To add to the unpopularity of this measure, the king, notwithstanding his dissolving the parliament, allowed the convocation to sit; a practice of which, since the Reformation, there had been very few examples. Besides granting to the king a supply from the spirituality, the convocation, jealous of innovations similar to those which had taken place in Scotland, imposed an oath on the clergy and the graduates in the universities, by which every one swore to maintain the established government of the church, by archbishops, bishops, deans, chapters, &c. These steps were deemed illegal, because not ratified by consent of parliament; and the oath, containing an &c. in the middle of it, became a subject of general ridicule.

The king, disappointed of parliamentary subsidies, was again obliged to have recourse to expedients. He borrowed money from his ministers and courtiers: who subscribed above £300,000 in a few days. Some vain attempts were made towards forcing a loan from the citizens; but £40,000 was extorted from the Spanish merchants who had bullion in the tower. Coat and conduct money for the soldiery was levied on the counties: an ancient practice, but supposed to be abolished by the petition of right. All the pepper was bought from the East India Company upon trust; and sold, at a great discount, for ready money. A scheme was proposed for coining £200,000 or £300,000 of base money. Such were the extremities to which Charles was reduced. These expedients, however, enabled the king, though with great difficulty, to march his army to the north, consisting of 19,000

foot and 2000 horse. The earl of Northumberland was appointed general, and the earl of Strafford lieutenant-general. A small fleet was thought sufficient for the purposes of this expedition. The Scots, superior in numbers, now marched to the borders of England; but still preserved the most submissive language to the king. At Newburn upon Tyne they were opposed by a detachment of 4500 men under lord Conway, whom they first intreated, with great civility, not to stop them in their march to their gracious sovereign; then attacked them with great bravery, killed several, and routed the rest. Such a panic seized the whole English army, that the forces at Newcastle fled immediately to Durham, and ultimately into Yorkshire. The Scots, continuing to advance, despatched submissive messengers to the king, who was now arrived at York. They even made apologies, full of sorrow and contrition, for their late victory.

Charles was in a very distressed condition; and, to prevent the further advance of the Scots, agreed to a treaty, naming sixteen English noblemen to meet with eleven Scots commissioners at Rippon. Strafford, upon whom, during Northumberland's sickness, the command of the army had devolved, advised Charles rather to put all to hazard than to submit to such unworthy terms as the Scottish chiefs urged. He advised him to push forward and attack them. But this salutary advice Charles had not resolution to follow. He therefore resolved to call a council of the peers; and, as he foresaw that they would advise him to call a parliament, he told them in his first speech that he had already taken that resolution. In order to subsist both armies (for the king was obliged to pay his enemies, in order to preserve the northern counties from pillage), Charles wrote to the city, desiring a loan of £200,000; and the peers at York, whose authority was now much greater than that of their sovereign, joined in the request. The parliament met November 3d, 1640.

Never had the house of commons been observed to be so numerous. That they might strike at once a decisive blow against the court, they began the session with the impeachment of the earl of Strafford. He had governed Ireland, first as deputy and then as lord lieutenant, during eight years, with great vigilance, activity, and prudence, but with very little popularity. His deportment was haughty, rigid, and severe; and the universal discontent of the nation was pointed against him. He had been a leader of opposition, before he became the favorite of the king; and his former associates, finding that he owed his advancement to the desertion of their cause, represented him as the great apostate of the commonwealth, whom it behoved them to sacrifice to public justice. 'You have left us,' said the famous Pym, 'but we shall not leave you while your head is on your shoulders.' From so formidable a combination no individual could be expected to escape. Strafford was impeached, condemned, and at last executed, in 1641. It was not without extreme difficulty that the king could be brought to consent to his execution. He came to the house of lords, where he expressed his resolution never to employ Strafford again in any public business; but with regard to the treason, for which he was arraigned, he professed himself unable to discover any proofs of it. The commons on this voted it a breach of privilege for the king to take notice of a bill pending before the house; and the house of lords were intimidated, by popular violence, into passing it. The same means were employed to force the king's assent. The populace flocked about Whitehall, and accompanied their demand of justice with the loudest clamors and menaces. Reports of conspiracies, insurrections, and invasions, were spread abroad. On whatever side the king cast his eyes, he saw no resource nor security. All his servants, consulting their own safety rather than their master's honor, declined interposing with their advice between him and his parliament. The queen, terrified at the appearance of so great danger, pressed Charles, with tears, to satisfy his people in this demand, which it was hoped would finally content them. Archbishop Juxon alone had the courage to advise him, if he did not approve of the bill, by no means to consent to it. At last the unfortunate earl, hearing of the king's irresolution and anxiety, wrote to him a letter, in which he desired his own execution in order to give peace to the nation: and Charles granted a commission to four noblemen, in his name, to give the royal assent to the bill. These commissioners he empowered at the same time to give his assent to a bill yet more fatal to himself, viz.: That the present parliament should not be dissolved, prorogued, or adjourned, without their own consent.

By this last act, Charles rendered the power of his enemies perpetual, as it was already uncontrollable. The reason assigned for this extraordinary step was, that the commons, from policy, more than necessity, had embraced the expedient of paying the two armies by borrowing money from the city. These loans they repaid by taxes levied on the people. At last the citizens, either of themselves, or by suggestion, began to mention difficulties with regard to a farther loan. 'We should make no scruple of trusting the parliament,' said they, 'were we certain that the parliament was to continue till our repayment. But, in the present precarious situation of affairs, what security can be given us for our money?' To obviate this, the abovementioned bill was suddenly brought in, and, having passed both houses with great rapidity, was at last brought to the king; who, being oppressed with grief on account of the unhappy fate of Strafford, did not perceive the pernicious consequence of the bill. All this time the commons had ruled in other respects with uncontrollable sway. Soon after the impeachment of Strafford, Laud was accused of high treason, and committed to custody. To avoid the like fate, lord keeper Finch and secretary Windebank fled, the one into Holland, the other into France. The house now instituted a new species of guilt, termed delinquency: a term first applied to those who had exercised the powers necessary for the defence of the nation during the late military operations. All the magistrates and sheriffs

who had formerly exacted ship-money, though by the king's express command, were now also declared delinquents, as well as the farmers and officers of the customs who had been employed during so many years in levying tonnage, poundage, &c. They were afterwards glad to compound for a pardon, by paying £150,000. Every discretionary or arbitrary sentence of the star-chamber and high commission courts underwent a severe scrutiny; and all those who had concurred in such sentences were voted to be liable to the penalties of law. No minister of the king, no member of the council, but found himself exposed by this determination. The judges who had formerly given sentence against the celebrated Hampden, for refusing to pay ship-money, were accused before the peers, and obliged to find security for their appearance. Berkley, a judge of the king's bench, was seized by order of the house, even when sitting in his tribunal. The sanction of the lords and commons, as well as that of the king, was declared necessary for the confirmation of ecclesiastical canons. Monopolists and projectors, if of the king's party, were now expelled the house; but one Mildmay, a notorious monopolist, was allowed to keep his seat, because he was of the popular party. In short, the constitution was completely new-modelled; and during the first period of the transactions of this remarkable parliament, if we except Strafford's attainder, their merits in other respects so much overbalance their mistakes as to entitle them to very ample praises from all lovers of liberty. Not only were former abuses remedied, and grievances redressed; great provision for the future was made by excellent laws. And if the means by which they obtained such mighty advantages savoured often of artifice, sometimes of violence, it is to be considered, that revolutions of government cannot be effected by mere force of argument and reasoning; and that, factions being once excited, men can neither so firmly regulate the tempers of others, nor their own, as to ensure themselves against all excesses. The king had promised to pay a visit this summer to his subjects in Scotland, in order to settle their government; and, though the English parliament was very importunate with him to lay aside the journey, they could not prevail with him so much as to delay it. Having failed in this, they appointed a small committee of both houses to attend him, in order, as was pretended, to see the articles of pacification executed, but really to act as spies upon the king. Endeavours were even used, before Charles's departure, to have a protectorate of the kingdom appointed, with a power to pass laws without having recourse to the royal assent. About this time the king communicated to parliament his intention of concluding the marriage of the princess Mary with William prince of Orange, and the houses adjourned from September 9th to October 20th, 1641.

Charles arrived in Scotland August 14th, 1614, with a design to give full satisfaction, if possible, to this restless kingdom. The bench of bishops and lords of articles were at once abolished; it was ordained that no man should be created a Scottish peer who did not possess 10,000 merks (above £500) annual rent in the kingdom; a law for triennial parliaments was likewise enacted; and it was ordained, that the last act of every parliament should be to appoint the time and place for holding the parliament next ensuing: the king was also deprived of the power, formerly exercised, of issuing proclamations which enjoined obedience under the penalty of treason. But the most fatal blow to the royal authority, and what in a manner dethroned the king, was an article, that no member of the privy council, in whose hands, during the king's absence, the whole administration lay, no officer of state, nor any of the judges, should be appointed but by advice and approbation of parliament. Charles even agreed to deprive of their seats four judges who had adhered to his interests; and their place was supplied by others more agreeable to the ruling party. Several of the covenanters were also sworn of the privy council, and all the ministers of state, counsellors, and judges, were, by law, to hold their places during life or good behaviour. The king, while in Scotland, conformed himself to the established church; he bestowed pensions and preferments on Henderson, Gillespy, and other popular preachers; and practised every art to soften, if not to gain, his greatest enemies. But, though Charles was thus obliged to heap favors on his enemies and overlook his friends, the former were not satisfied, believing all he did to proceed from artifice and necessity; while some of the latter were disgusted, and thought themselves ill rewarded for their past services. Argyle and Hamilton, being seized with an apprehension, real or apprehended, that the earl of Crawfurd and others meant to assassinate them, left the parliament suddenly, and retired into the country: but, upon invitation and assurances of safety, returned in a few days. This event, which in Scotland had no visible consequence, was commonly denominated the incident; which, though it had no particular effect in Scotland, was attended with very serious consequences in England. The English parliament insinuated to the people, that the malignants (so they called the king's party) had laid a plot at once to murder them and all the godly in both kingdoms. They applied therefore to Essex, whom the king had left general of the south of England; and ordered a guard to attend them. In the mean time a most dangerous rebellion broke out in Ireland, with circumstances of unparalleled horror and bloodshed. The native Irish, by the wise conduct of James, had been fully subdued, and proper means taken for securing their dependence and subjection; but their animosity against the English still remained, and only wanted an opportunity to exert itself. This they obtained from the weak condition to which Charles was reduced, and it was made use of in the following manner:—More, a gentleman descended from an ancient Irish family, but of narrow fortune, having formed the project of expelling the English, and asserting the independency of his native country, went secretly from chieftain to chieftain, to rouse up the principles of discontent. He maintained a close correspondence with lord Macguire and Sir Phelim

O'Neale, the most powerful of the old Irish; and by his persuasions soon engaged not only them, but the most considerable persons of the nation, in a conspiracy; in which it was hoped the English of the pale, as they were called, or the English planters, being all Catholics, would afterwards join. Their plan was, that Sir Phelim O'Neale, and the other conspirators, should proclaim the independence of Ireland on a given day throughout the provinces, and that, on the same day, lord Macguire and Roger More should surprise the castle of Dublin. They fixed on the beginning of winter for the commencement of this revolt; that there might be more difficulty in transporting forces from England. Succours to themselves, and supplies of arms, they expected from France, in consequence of a promise made them by cardinal Richelieu; and many Irish officers, who had served in the Spanish army, had given assurances of their concurrence, as soon as they saw an insurrection entered upon by their Catholic brethren. News, which every day arrived from England, of the measures of the commons against all papists, stimulated the conspirators to execute their fatal purpose, and assured them of the concurrence of their countrymen. Such a propensity was discovered in all the Irish to revolt, that it was deemed unnecessary as well as dangerous to trust the secret in many hands; and, though the day appointed drew nigh, no discovery had yet been made to government. The king, indeed, had received information from his ambassadors, that something was in agitation among the Irish in foreign parts; but, though he gave warning to the administration in Ireland, the intelligence was discredited. The English were awakened from their security only the day before the commencement of hostilities. The castle of Dublin, by which the capital was commanded, contained arms for 10,000 men, with thirty-five pieces of cannon, and a proportionable quantity of ammunition. Yet was this important place guarded by no greater force than fifty men. Macguire and More were already in town with a numerous band of their retainers; others were expected that night; and next morning they were to enter upon what they esteemed the easiest of all enterprises, the surprisal of the castle. O'Connolly, however, an Irish protestant, discovered the conspiracy. The justices and council fled immediately to the castle, and reinforced the guards: the city was alarmed, and all the Protestants prepared for defence. More escaped, but Macguire was taken; and Mahon, one of the conspirators, being likewise seized, first discovered to the justices the project of a general insurrection. But though O'Connolly's discovery saved the castle, Mahon's confession came too late to prevent the insurrection. O'Neale and his confederates had already taken arms in Ulster. The houses, cattle, and goods of the English were first seized. Those who heard of the commotions in their neighbourhood, instead of deserting their habitations, and assembling together for mutual protection, remained at home in hopes of defending their property: and thus fell separately into the hands of their enemies. A universal massacre now commenced, accompanied with circumstances of unequalled barbarity. No age, sex, or condition was spared. All connexions were dissolved, and death was often dealt by that hand from which protection was implored and expected. The tortures which wanton cruelty only could devise, the most lingering pains of body, and anguish of mind, could not satiate revenge the most extreme, excited without injury, and active without intermission. Such enormities, in short, were committed, that, if not attested by undoubted evidence, they would appear incredible. If any where a number assembled together, and resolved to oppose the assassins, they were disarmed by capitulations and promises of safety, confirmed by the most solemn oaths. But no sooner had they surrendered than the rebels, with a perfidy equal to their cruelty, made them share the fate of their unhappy countrymen. Others tempted their prisoners, by the fond love of life, to imbrue their hands in the blood of friends, brothers, or parents; and, having thus rendered them accomplices in their own guilt, gave them that death which they sought to shun by deserving it. Such were the barbarities by which Sir Phelim O'Neale, and the Irish in Ulster signalised their rebellion. More, shocked at the recital of these enormities, flew to O'Neale's camp; but found that his authority, which was sufficient to excite the Irish to a rebellion, was too feeble to restrain their inhumanity. Soon after, he abandoned the cause, and retired to Flanders. From Ulster the flames of discord spread over the other three provinces. In all places death and slaughter were common; though the Irish in the other provinces pretended to act with moderation and humanity. But even here cruel and barbarous was their humanity! Not content with expelling the English from their houses, they often stripped them of their clothes, and turned them out naked and defenceless to all the severities of the season. By some computations, those who perished by these various cruelties amounted to 150,000, or 200,000; but, by the most moderate, they could not have been less than 50,000. The English of the pale at first condemned the insurrection, and appeared to detest the barbarity with which it was accompanied. By their protestations and declarations they engaged the justices to supply them with arms, which they promised to employ in defence of government. But the interests of their intolerant religion were soon found to be more prevalent over them than duty to their country. They chose lord Gormoostone their leader; and, joining the Irish, rivalled them in every act of cruelty towards the English Protestants. Besides many smaller bodies, dispersed over the kingdom, the rebels had a main army amounting to 20,000 men, which now threatened Dublin with immediate siege; and both the English and Irish rebels pretended authority from the king and queen, but especially the latter, for their insurrection. They affirmed that the cause of their taking arms was to vindicate the royal prerogative, invaded by the puritanical parliament: and Sir Phelim O'Neale, having found a royal patent in the house of lord Caulfield, whom he had murdered, tore off the seal, and affixed it to a commission which he had forged.

Charles received intelligence of this insurrection while in Scotland, and immediately acquainted the parliament with it. He hoped, as there had all along been such an outcry against Popery, that now, when that religion was appearing in its blackest colors, the nation would vigorously support him in the suppression of it. But here he found himself mistaken. The Scots already considering themselves as a republic, and conceiving hopes from the present distresses of Ireland, resolved to make an advantageous bargain for the succours with which they should supply. Except, therefore, despatching a small body of forces, to support their colonies in Ulster, they would go no farther than to send commissioners to London, in order to treat with the parliament. The king, too, sensible of his utter inability to subdue the Irish rebels, found himself obliged, in this exigency, to have recourse to the English parliament, and depend on their assistance. He told them that the insurrection was not, in his opinion, the result of any rash enterprise, but of a formed conspiracy against the crown. To their care and wisdom, therefore, he said, he committed the conduct and prosecution of the war, which, in a cause so important to national and religious interests, must of necessity be immediately entered upon. But the parliament, now re-assembled, discovered in every vote the same dispositions in which they had separated. Nothing less than a total abolition of monarchy seemed resolved upon. This project, however, it had not been in the power of the popular leaders to have executed, had it not been for the ardor of the nation for the presbyterian discipline. By the difficulties and distresses of the crown, the commons, who alone possessed the power of supply, had aggrandised themselves; and it seemed fortunate for their interests that the Irish rebellion had succeeded, at such a critical juncture, to the pacification in Scotland. The concession of the king, by which he committed to them the care of Ireland, they immediately laid hold of, and interpreted in the most unlimited sense: assuming the sovereignty of that country fully and entirely. While they pretended the utmost zeal against the insurgents, however, they took no steps for their suppression, but such as likewise gave them the superiority in those commotions, which they foresaw must be soon excited in England. They levied money under pretence of the Irish expedition, but reserved it for purposes which concerned them more nearly: they took arms from the king's magazines, but still kept them with a secret intention of making use of them against himself: whatever law they deemed necessary, for aggrandising themselves, they voted, under color of enabling them to recover Ireland; and, if Charles withheld his royal assent, the refusal was imputed to those pernicious counsels, which at first excited to Popish rebellion, and which still threatened total ruin, as they declared, to the Protestant interest. So strong was the people's attachment to the commons, that no fault was imputed to those pious zealots, whose votes breathed nothing but death and destruction to the Irish rebels. The conduct of the parliament towards the king himself became in the mean time exceedingly cruel. It was thought proper to frame a general remonstrance on the state of the kingdom; and accordingly the committee, which at the first meeting of the parliament had been chosen for that purpose, were commanded to finish their undertaking. The king returned from Scotland, November 25th, 1641. He was received in London with the shouts of the populace, and every demonstration of public regard. Sir Richard Gournay, lord mayor, a man of great merit and influence, had promoted these dispositions. But the remonstrance of the commons soon awoke him to their bold designs. The bad counsels which he followed were complained of; his concurrence in the Irish rebellion plainly insinuated; 'the scheme laid for the introduction of popery and superstition' was inveighed against; and, for a remedy to all these evils, the king was desired to entrust important offices and commands to persons in whom his parliament should have cause to confide. To this remonstrance Charles was obliged to make a civil reply, notwithstanding his subjects had transgressed all bounds of respect in their treatment of him. It would be tedious to point out every invasion of the prerogative, now attempted and carried by the commons. Finding themselves at last likely to be opposed by the peerage, they openly told the upper house, that 'they themselves were the representatives of the great body of the kingdom, and that the peers were nothing but individuals, who held their seats in a particular capacity; and, therefore, if their lordships would not consent to acts necessary for the preservation of the people, the commons, together with such of the lords as were more sensible of the danger, must join together, and represent the matter to his majesty.' Every method of alarming the people was now put in practice. The commons affected continual fears of destruction. They excited the people by never ceasing enquiries after conspiracies, reports of insurrections, and feigned intelligence from abroad, against Papists and their adherents. When Charles dismissed the guard, which they had ordered during his absence, they complained; and, upon his promising them a new one, under the command of the earl of Lindesay, they absolutely refused the offer: on the other hand, they ordered halberts to be brought into the hall where they assembled, and thus armed themselves against those conspiracies with which they said they were hourly threatened. Several reduced officers, and young gentlemen of the inns of court, during this time of distress and danger, offered their service to the king. Between them and the populace there often passed skirmishes, which ended not without bloodshed. By way of reproach, these gentlemen gave the populace the name of Round-heads, on account of their short cropt hair; while they distinguished the others by the name of Cavaliers. And thus the nation, which was before sufficiently provided with religious as well as civil causes of quarrel, was also supplied with party names, under which the factions might signalise their mutual hatred. These tumults continued to increase about Westminster and Whitehall. The cry continually resounded against bishops and

rotten-hearted lords. The former, especially, being easily distinguishable by their habit; and being the object of violent hatred to all the sectaries, were exposed to the most dangerous insults. The archbishop of York, having been abused by the populace, hastily called a meeting of his brethren. By his advice a protestation was drawn up, and addressed to the king and the house of lords. The bishops there set forth, that though they had an undoubted right to sit and vote in parliament, yet, in coming thither they had been menaced, assaulted, and affronted, by the unruly multitude, and could no longer with safety attend their duty in the house. For this reason they protested against all laws, votes, and resolutions, as null and invalid, which should pass during the time of their forced absence. This protestation, which, though just and legal, was certainly ill-timed, was signed by twelve bishops, and communicated to the king, who hastily approved it. As soon as it was presented to the lords, that house desired a conference with the commons, whom they informed of this unexpected protestation. The opportunity was seized with joy and triumph. An impeachment of high treason was immediately sent up against the bishops, as endeavouring to subvert the fundamental laws, and to invalidate the authority of the legislature. They were now, therefore, dismissed from parliament, and committed to custody; no man in either house venturing to speak a word in their vindication. This was a fatal blow to the royal interest; but it was soon to receive a much greater from the imprudence of the king himself. Charles had long suppressed his resentment, and strove earnestly to gratify the commons by the greatness of his concessions; but, finding that all this had but increased their demands, he could no longer bow to them. He gave orders to Herbert, the attorney-general, to enter an accusation of high treason, in the house of peers, against lord Kimbolton, one of the most popular men of his party, together with five commoners, Sir Arthur Haslerig, Hollis, Hampden, Pym, and Strode. The articles were, that they had traitorously endeavoured to subvert the fundamental laws and government of the kingdom, to deprive the king of his regal power, and to impose on his subjects an arbitrary and tyrannical authority; that they had invited a foreign army to invade the kingdom; that they had aimed at subverting the very right and being of parliaments; and actually raised and countenanced tumults against the king. Men had scarcely leisure to wonder at the precipitancy and imprudence of this impeachment, when they were astonished by another measure still more rash and unsupported. A serjeant at arms, in the king's name, demanded of the house the five members, and was sent back without any positive answer. This was followed by a conduct still more extraordinary. The next day the king himself entered the house of commons alone, advancing through the hall, while all the members stood up to receive him. The speaker withdrew from his chair, and the king took possession of it. Having seated himself, and looked round him for some time, he told the house, that he was sorry for the occasion that forced him thither; that he was come in person to seize the members whom he had accused of high treason, seeing they would not deliver them up to his serjeant at arms. Then addressing himself to the speaker, he desired to know whether any of them were in the house; but the speaker falling on his knees, replied, that he had neither eyes to see, nor tongue to speak, in that place, but as the house was pleased to direct him; and he asked pardon for being able to give no other answer. The king sat for some time, to see if the accused were present; but they had escaped a few minutes before his entry. Thus disappointed, perplexed, and not knowing on whom to rely, he next proceeded amidst the invectives of the populace, who continued to cry out, 'Privilege! privilege!' to the common council of the city, and made his complaint to them. The common council answered his complaints by a contemptuous silence; and, on his return, one of the populace, more insolent than the rest, cried out, 'To your tents, O Israel!' a watch word among the Jews, when they intended to abandon their princes. The commons assembled the next day, when they professed the greatest alarm: and passed a unanimous vote, that the king had violated their privileges, and that they could not assemble again in the same place, till they should obtain satisfaction. The king had retired to Windsor, and thence he wrote to the parliament, making every concession, and promising every satisfaction in his power. But they were resolved to accept of nothing, unless he would discover his advisers in that illegal measure; a condition to which, they knew, that, without rendering himself for ever contemptible, he could not possibly submit. The commons had already stripped the king of almost all his privileges; the bishops were fled, the judges were intimidated; it now only remained, after securing the church and the law, that they should get possession of the sword also. The power of appointing governors and generals, and of levying armies, was still a remaining prerogative of the crown. Having therefore first magnified their terrors of Popery, which perhaps they actually dreaded, they proceeded to petition that the tower might be put into their hands; and that Hull, Portsmouth, and the fleet, should be intrusted to persons of their choosing:—requests, the complying with which subverted what remained of the constitution; however, such was the necessity of the times, that they were first contested, and then granted. At last the commons desired to have a militia, raised and governed by such officers and commanders as they should nominate, under pretence of securing them from the Irish Papists, of whom they were under great apprehension. Charles now ventured to put a stop to his concessions. He was then at Dover, attending the queen and the princess of Orange, who thought it prudent to leave the kingdom. He replied to the petition, that he had not now leisure to consider a matter of such great importance; and therefore would defer an answer till his return. But the commons alleged that the dangers and distempers of the nation were such as could endure no longer delay; and unless the king should speedily comply with

their demands, they would be obliged, both for his safety, and that of the kingdom, to embody a militia by the authority of both houses. In their remonstrances to the king, they desired even to be permitted to command the army for an appointed time; which so exasperated him, that he exclaimed, 'No, not for an hour.' This answer broke off the treaty; and both sides resolved to have recourse to arms. Charles, taking the prince of Wales with him, retired to York, where he found the people more loyal, and his cause supported by a more numerous party than he had expected. The queen, who was in Holland, was also making successful levies of men and ammunition, by selling the crown jewels. But, before war was openly declared, a negociation was carried on, with a design to please the people. The parliament sent the king the conditions on which they were willing to come to an agreement. Their demands were contained in nineteen propositions, and amounted to almost a total surrender of monarchical authority. They required that no man should remain in the council who was not agreeable to parliament; that no deed of the king's should have validity unless it passed the council, and was attested under their hand; and that all the officers of state should be chosen with consent of parliament; that none of the royal family should marry without consent of parliament or council; that the laws should be executed against Catholics; that the votes of popish lords should be excluded; that the reformation of the liturgy and church government should take place according to the advice of parliament; that the ordinance with regard to the militia should be submitted to; that the justice of parliament should pass upon all delinquents; that a general pardon should be granted, with such exceptions as should be advised by parliament; that the forts and castles should be disposed of by consent of parliament; and no peer made but with consent of both houses. War on any terms was esteemed by the king, and all his counsellors, preferable to so ignominious a peace. Charles accordingly resolved to support his authority by force of arms. 'His towns,' he said, 'were taken from him; his ships, his army, and his money: but there still remained to him a good cause, and the hearts of his loyal subjects; which, with God's blessing, he doubted not, would recover all the rest.' Collecting, therefore, some forces, he advanced southwards, and erected the royal standard at Nottingham.

The king found himself supported in the civil war, which now ensued, by the nobility and principal gentry; who, dreading a total confusion of rank, from the fury of the populace, inlisted themselves under the banner of the monarch. The concurrence of the bishops and the church also increased the adherents of the king; but, it must be added, that the high monarchical doctrine so much inculcated by the clergy, had done him much ill. The majority of the nobility and gentry, who now attended him, breathed the spirit of liberty as well as of loyalty: and, in the hopes of his submitting to a limited and legal government, they were willing to sacrifice their lives and fortunes. On the other hand, the city of London, and most of the great corporations, took part with the parliament; and adopted with zeal those democratical principles on which these assemblies were founded. The example of the Dutch commonwealth too, where liberty had so happily supported industry, made the commercial part of the nation desirous to see a similar form of government in England. At first every advantage seemed to lie against the royal cause. The king was totally destitute of money. London, and all the sea-ports, except Newcastle, being in the hands of parliament, they were secure of a considerable revenue; and, the seamen naturally following the disposition of the ports to which they belonged, they had also the entire dominion of the sea. All the magazines of arms and ammunition they also seized; and their fleet intercepted the greatest part of those sent by the queen from Holland.

The king, in order to arm his followers, was obliged to borrow the weapons of the trained bands, under promise of restoring them as soon as peace should be settled; and the rank and quality of his adherents gave the king some hopes of compensation for all the advantages possessed by his adversaries. More bravery and activity were expected from the nobles and gentry, than from the multitude. And as the landed gentlemen, at their own expense, levied and armed their tenants, besides their attachment to their masters, greater courage and exertions were to be expected from these rustic troops, than from the vicious and enervated populace of cities. Had the parliamentary forces, however, exerted themselves at first, they might have easily dissipated the small number the king had been able to collect, and which amounted to no more than 800 horse, and 300 foot; while his enemies were within a few days' march of him with 6000 men. In a short time the parliamentary army were ordered to march to Northampton; and the earl of Essex, who had joined them, found the whole to amount to 15,000. The king's army too was increased from all quarters; but still, having no force capable of coping with the parliamentarians, he thought it prudent to retire to Derby, and thence to Shrewsbury, to countenance the levies which his friends were making in those parts. At Wellington, a day's march from Shrewsbury, he caused his orders to be read at the head of every regiment. He here protested solemnly before his whole army, that he would maintain the Protestant religion according to the church of England; that he would govern according to the known statutes and customs of the kingdom; and, particularly, that he would observe inviolably the laws to which he had given his consent during this parliament, &c. While Charles lay at Shrewsbury, he received the news of an action, the first which had happened in this contest, and wherein his party was victorious. On the appearance of commotions in England, the princes Rupert and Maurice, sons of the unfortunate elector-palatine, had offered their services to the king; and the former at that time commanded a body of horse which had been sent to Worcester to watch the motions of Essex, who was marching towards that city. No sooner

nad the prince arrived, than he saw some cavalry of the enemy approaching the gates. Without delay he briskly attacked them, as they were defiling from a lane, and forming themselves. Colonel Sandys, their commander, was killed, the whole party routed, and pursued above a mile.

In 1642, October 23d, a general engagement took place at Edgehill, in which, though the royalists were at first victorious, their impetuosity lost the advantage they had gained; and 5000 men were found dead on the field of battle. Soon after the king took Banbury and Reading; and defeated two regiments of the enemy at Brentford, taking 500 prisoners. Thus ended the campaign of 1642; in which, though the king had the advantage, yet the parliamentary army had increased to 24,000 men, and was much superior to his: notwithstanding which they offered terms of peace.

In 1643, the treaty was carried on, but without any cessation of hostilities; and indeed the negociation went no farther than the first demand on each side; for the parliament, finding no probability of coming to an accommodation, suddenly recalled their commissioners. On the 27th April, Reading surrendered to the parliamentary forces under the earl of Essex, who commanded a body of 18,000 men. The earl of Northumberland united in a league for the king the counties of Northumberland, Cumberland, Westmoreland, and the bishopric; and some time after engaged other counties in the same association. He also took possession of York, and dislodged the forces of the parliament at Tadcaster, but his victory was not decisive. Other advantages were also gained by the royalists; the most important of which was in the battle of Stratton, where the poet Waller, who commanded the parliamentary army, was entirely defeated, and forced to fly with only a few horse to Bristol. This happened on the 13th July; and was followed by the siege of that city, which surrendered to prince Rupert on the 25th of the same month. Such a tide of success on the part of the royalists had greatly dispirited the opposite party; and such confusion now prevailed at London, that some proposed to the king to march directly to that city, and thus put an end to the civil disorders at once. This advice, however, was rejected, and it was resolved first to reduce Gloucester, in consequence of which the king would have the whole course of the Severn under his command. The siege of that city commenced August 10; but being defended by Massey, a resolute governor, and well garrisoned, it made a vigorous defence. The consternation in London, however, was as great as if the enemy had been already at their gates; and, in the midst of the general confusion, a design was formed by Waller of forcing the parliament to accept of some reasonable conditions of peace. This design he imparted to some others; but, a discovery being made of their proceedings, he and two of his coadjutors were condemned to death. Waller, however, escaped with a fine of £10,000. The city of Gloucester in the mean time was reduced to the utmost extremity; and the parliament, as their last resource, despatched Essex with an army of 14,000 men, in order to raise the siege. This he accomplished; and when he entered, found only one barrel of gunpowder left and other provisions in the same proportion. On his return to London, he was intercepted by the king's army, with whom a desperate battle ensued at Newbury, which lasted till night. Though the victory was left undecided, Essex next morning proceeded on his march, and reached London in safety. The king followed him; and having taken possession of Reading after the earl left it, he there established a garrison. During this summer, the earl, now marquis of Newcastle, had raised a considerable force for the king in the north; and great hopes of success were entertained from that quarter. There appeared, however, in opposition to him, two men on whom the event of the war finally depended, and who began about this time to be remarked for their valor and military conduct. These were Sir Thomas Fairfax, son to the lord of that name; and Oliver Cromwell. The former gained a considerable advantage over the royalists at Wakefield, and took general Goring prisoner; the latter obtained a victory at Gainsborough over a party commanded by the gallant Cavendish, who perished in the action. But both these defeats were more than compensated by the total rout of lord Fairfax at Atherton Moor, and the dispersion of his army, which happened on the 31st of July. After this victory the marquis of Newcastle sat down before Hull, with an army of 15,000 men; but afterwards thought proper to raise the siege. About the same time, Manchester, who advanced from the eastern associated counties, having joined Cromwell and young Fairfax, obtained a considerable victory over the royalists at Horn Castle. See CROMWELL. The king's party, however, still remained much superior in those parts of England; and had it not been for the garrison of Hull, which kept Yorkshire in awe, a conjunction of the northern forces with the army in the south, might have been made.

The battle of Newbury was attended with such loss on both sides, that it put an end to the campaign of 1643, by obliging both parties to retire into winter quarters. The event of the war being now very doubtful, both the king and parliament began to look for assistance from other nations. The former cast his eyes on Ireland, the latter looked to Scotland. At the commencement of the dissensions, the parliament of England had invited the Scots to interpose their mediation, which they knew would be very little favorable to the king, and which for that reason he had declined. Early in the spring of 1643 this offer of mediation had been renewed, with no better success. The parliament, being now in great distress, sent commissioners to Edinburgh, to treat of a more close confederacy with the Scottish nation. The person they principally trusted to on this occasion was the eloquent and able Sir Henry Vane. By his advice was framed at Edinburgh the solemn league and covenant: which exceeded all former protestations and vows taken in both kingdoms, and long maintained its credit and authority. See COVENANT.

Great were the rejoicings among the Scots, that they should be the happy instruments of extending their mode of religion, and dissipating the profound darkness in which the neighbouring

nations were involved. Being determined that the sword should carry conviction to all refractory minds, they acceded to the English proposals; and prepared with great vigilance and activity for military enterprises; so that, having added to their other forces the troops which they had recalled from Ireland, they were ready about the end of the year to enter England, under their old general the earl of Leven, with an army of above 20,000 men. The king, in the interim, concluded a cessation of arms with the Irish rebels, and recalled a considerable part of his army from Ireland. Some Irish Catholics came over with these troops, and joined the royal army, where they continued the same cruelties and disorders to which they had been accustomed. The parliament now voted, therefore, that no quarter in any action should be given them. But prince Rupert, by making some reprisals, soon repressed this inhumanity.

The campaign of 1644 proved at first favorable to the royal cause, though afterwards quite the reverse. The Irish forces besieged and took the castles of Hawarden, Beeston, Acton, and Deddington House. No place in Cheshire or the neighbourhood now adhered to the parliament, except Nantwich; and to this place Biron laid siege in the depth of winter. Sir Thomas Fairfax, alarmed at his progress, assembled an army of 4000 men in Yorkshire; and, having joined Sir William Brereton, attacked the camp of the royalists:—when the swelling of the river by a thaw divided their army. That part exposed to Fairfax, being beat from their post, retired into the church of Acton, where they were all taken prisoners. The other retreated with precipitation; and thus was dissipated the whole body of forces which had come from Ireland. This happened on the 25th of January; and, on the 11th of April, colonel Bellasis was totally defeated at Selby in Yorkshire, by Sir Thomas Fairfax, who had returned from Cheshire. Being afterwards joined by lord Leven, the two generals sat down before York; but, being unable to invest that city completely, they contented themselves with incommoding it by a loose blockade. Hopeton, having assembled a body of 14,000 men, endeavoured to break into Sussex and Kent, but was defeated by Waller at Cherington. At Newark, however, prince Rupert totally defeated the parliamentary army which besieged that place; and thus preserved the communication open between the king's northern and southern forces. Manchester on the other hand, having taken Lincoln, had united his army to that of Leven and Fairfax; and reduced York to the last extremity. At this time prince Rupert, having joined Sir Charles Lucas who commanded Newcastle's horse, hastened to its relief with an army of 20,000 men; when the Scots and parliamentary generals raised the siege, and drew up on Marston Moor. The prince, hurried on by his natural impetuosity, gave immediate orders for fighting. The battle it is well known (see CROMWELL) was lost, the royal army entirely pushed off the field, and the train of artillery taken. Immediately after this, the marquis of Newcastle left the kingdom, prince Rupert retired into Lancashire, York was surrendered in a few days, and Newcastle taken by storm. On the 27th of October another battle was fought at Newbury, in which the royalists were worsted, but soon after retrieved their honor at Dennington Castle, which finished the campaign of 1644.

In 1645 a negociation was again set on foot, and the commissioners met at Uxbridge on the 30th of January; but it was soon found impossible to come to any agreement. The demands of the parliament were exorbitant; and even these their commissioners owned to be nothing but preliminaries. The king was required to attaint, and except from a general pardon, forty of the most considerable of his English subjects, and nineteen of his Scots, together with all the popish recusants who had borne arms for him. It was insisted that forty-eight more, with all the members of either house who had sat in the parliament called by the king at Oxford, and all lawyers and divines who had embraced the king's party, should be rendered incapable of any office, be prohibited from coming within the verge of the court, and forfeit the third of their estates to the parliament. Whoever had borne arms for the king was also to forfeit the tenth of their estates, or, if that did not suffice, the sixth, for the payment of the public debts. It was also demanded that the court of wards should be abolished; that all the considerable officers of the crown, and all the judges should be appointed by parliament; and that the right of peace and war should not be exercised without their consent. A little before the commencement of this fruitless treaty, the parliament, to show their determined resolution to proceed in the same haughty method in which they had begun, brought archbishop Laud to the block.

While the king's affairs thus went to ruin in England, they seemed to revive a little in Scotland, through the conduct and valor of the earl of Montrose, a young nobleman newly returned from his travels. He had been introduced to the king, but, not meeting with an agreeable reception, had gone over to the covenanters, and been active in forwarding all their violence. Being commissioned, however, by the Tables, to wait upon king Charles, while the army lay at Berwick, he was so gained by the caresses of that monarch, that he thenceforth devoted himself entirely, though secretly, to his service. For attempting to form an association in favor of the royal cause, Montrose was quickly thrown into prison; but, being again released, he found the king ready to give ear to his counsels, which were of the boldest and most daring kind. The defeat at Marston Moor had left him no hopes of any succours from England; he was therefore obliged to stipulate with the earl of Antrim, a nobleman of Ireland, for some supply of men from that country. And he himself having used various disguises, and passed through many dangers, arrived in Scotland, where he lay for some time concealed in the borders of the Highlands. The Irish did not exceed 1100 foot, very ill armed. Montrose immediately put himself at their head; and, being joined by 1300 Highlanders, attacked lord Elcho, who lay at Perth with 6000 men, utterly defeated him, and killed 2000 of the covenanters. He next marched northwards, to rouse again the marquis of Huntly

and the Gordons, who had taken arms before, but had been suppressed by the covenanters. For other particulars of his brilliant career, see MONTROSE.

We need here only add that having prevailed in many battles, which his vigor always rendered as decisive as they were successful, he prepared for marching into the southern provinces, in order to put a total period to the power of the covenanters, and disperse the parliament, which with great pomp and solemnity they had ordered to meet at St. Johnstone's.

Fairfax, or rather Oliver Cromwell under his name, employed himself meanwhile in bringing in a new model into the parliamentary army, and never surely was a more singular army established. To the greatest number of the regiments chaplains were not appointed. The officers assumed the spiritual duty, and united it with their military functions. During the intervals of action, they occupied themselves in sermons, prayers, and exhortations. Rapturous ecstacies supplied the place of study and reflection; and, while the zealous devotees poured out their thoughts in unpremeditated harangues, they mistook that eloquence, which to their own surprise, as well as that of others, flowed in upon them, for divine illuminations. Wherever they were quartered, they excluded the minister from his pulpit, and conveyed their sentiments to the audience with all the authority that followed their power, their valor, and their military exploits. Even private soldiers were seized with the same spirit: and an army of devotees paraded the country. The parliament also greatly increased their popularity at this time, passing an act called the self-denying ordinance, viz. that no member of their house should have a command in the army. The royalists ridiculed this fanaticism of the parliamentary armies, without being sensible how much reason they had to dread it. They were at this time equal, if not superior, in numbers to their enemies; but so licentious, that they were become as formidable to their friends as their foes. The natural consequence was, that equal numbers of the king's forces, could no longer maintain their ground against those of the parliament. This appeared in the decisive battle of Naseby, June 4th, 1645, where the forces were nearly equal; but, after an obstinate engagement, Charles was entirely defeated; 500 of his officers and 4000 private men made prisoners; all his artillery and ammunition taken, and his infantry totally dispersed; so that no victory could be more complete.

Charles, after this battle, retired first to Hereford, then to Abergavenny; and remained some time in Wales, in the vain hope of raising a body of infantry. Fairfax on the 17th of June retook Leicester. On the 10th of July he raised the siege of Taunton; and the royalists retired to Lamport, an open town in the county of Somerset. Here they were attacked by Fairfax, and beat from their post, with the loss of 300 killed and 1400 prisoners. This was followed by the loss of Bridgewater, which that commander took three days after; making the garrison, to the number of 2600 men, prisoners of war. He then reduced Bath and Sherborne; and, on the 11th of September, Bristol was surrendered by prince Rupert, though a few days before he had boasted in a letter to Charles, that he would defend the place for four months. This so enraged the king, that he immediately recalled all the prince's commissions, and sent him a pass to go beyond sea. The Scots in the mean time, having made themselves masters of Carlisle after an obstinate siege, marched southwards and invested Hereford; but were obliged to raise the siege on the king's approach: and this was the last glimpse of success that attended his arms. Having marched to the relief of Chester, which was anew besieged by the parliamentary forces under colonel Jones, his rear was attacked by Pointz, and an engagement immediately ensued. While the fight was continued with great obstinacy, and victory seemed to incline to the royalists, Jones fell upon them from the other side, and defeated them with the loss of 600 killed and 1000 taken prisoners. The king with the remains of his army fled to Newark; and thence to Oxford, where he shut himself up during the winter. After the surrender of Bristol, Fairfax and Cromwell having divided their forces, the former marched westwards to complete the conquest of Devonshire and Cornwall; the latter attacked the king's garrisons east of Bristol. At last news arrived that Montrose himself, after some more successes, was defeated; and thus the last hope of the royal party was destroyed. Nothing could be more affecting than the situation in which the king now found himself. He resolved to grant the parliament their own terms, and sent them repeated messages to this purpose, but they did not deign to make him any reply. At last, after reproaching him with the blood spilt during the war, they told him that they were preparing some bills, to which, if he would consent, they would then be able to judge of his pacific inclinations. Fairfax, in the meantime, was advancing with a victorious army to lay siege to Oxford; and Charles, rather than submit to be taken captive and led in triumph by his insolent English subjects, resolved to give himself up to the Scots, who had never testified such implacable animosity against him, and to confide himself to their loyalty. Passing by various cross-roads, he arrived in company with only two persons, Dr. Hudson and Mr. Ashburnham, at the Scots camp before Newark, and discovered himself to lord Leven their general. The reception he met with was such as might be expected from a set of men more influenced by bigotry, than the principles of honor or humanity. Instead of endeavouring to alleviate the distresses of their sovereign, they suffered him to be insulted by their clergymen, and immediately sent an account of his arrival to the English parliament. The Scots thought this a proper time for the recovery of the arrears due to them by the English. A considerable sum of money was really due to them, and they probably claimed more. At last, after various debates between them and the parliament, it was agreed, that, upon payment of £400,000, the Scots, to their everlasting disgrace, should deliver up the king to his enemies. The

general assembly piously pronounced, that as he refused to take the covenant which was pressed on him, it became not the godly to concern themselves about his fortune. The king, therefore, being delivered over to the English commissioners, was conducted under a guard to Holdenby in the county of Northampton; his ancient servants being dismissed, and he himself debarred from all visits, and communications with his family and friends.

But when the civil war was thus terminated, the parliament soon found themselves in the same situation to which they had reduced the king. The majority of he house were Presbyterians, but the majority of the army were Independents. The former, soon after the retreat of the Scots, seeing every enemy reduced, proposed to disband a considerable part of the army, and send the rest over to Ireland. This was by no means relished, and Cromwell took care to heighten the disaffection. Instead of preparing to disband, therefore, the soldiers resolved to petition; and they began by desiring an indemnity, ratified by the king, for any illegal actions which they might have committed during the war. The commons voted that this petition tended to introduce mutiny, &c.; and threatened to proceed against the promoters of it as enemies to the state. The army, therefore, began to set up for themselves. In opposition to the parliament at Westminster, a military parliament was formed. The principal officers formed a council to represent the body of peers; the soldiers elected two men out of each company to represent the commons, and thus was formed the celebrated body of agitators of the army. See AGITATORS and CROMWELL. The new parliament soon found many grievances to be redressed; and specified some of the most considerable. The commons were obliged to yield to every request, and the demands of the agitators rose in proportion. The commons accused the army of mutiny and sedition; the army retorted the charge, and alleged that the king had been deposed only to make way for their usurpations. Cromwell, in the mean time, who secretly conducted all the measures of the army, while he exclaimed against their violence, resolved to seize the king's person. Accordingly a party of 500 horse appeared at Holmby Castle, under the command of one Joyce, originally a tailor, but now a cornet; and by this man was the king conducted to the army, who were hastening to their rendezvous at Triplo Heath near Cambridge. Next day Cromwell arrived among them, where he was received with acclamations of joy, and immediately invested with the supreme command. The commons now saw the design of the army; but it was too late: resistance was become vain: Cromwell advanced with precipitation, and was in a few days at St. Alban's. Even submission was now useless; the army still rose in their demands, in proportion as these demands were gratified, till at last they claimed a right of modelling the whole government, and settling the nation. Cromwell began with accusing eleven members of the house, the leaders of the presbyterian party, as guilty of high treason. The commons were willing to protect them; but the army insisting on their dismission, they voluntarily left the house. At last the citizens of London, finding the constitution totally overturned, and a military despotism commencing, began to think seriously of repressing the insolence of the troops. The common council assembled the militia of the city; the works were manned; and a manifesto published, aggravating the hostile intentions of the army. Finding that the commons, in compliance with the request of the army, had voted that the city militia should be disbanded, the citizens besieged the door of the house, and obliged them to reverse that vote. The assembly was, of consequence, divided into two parties; the greater part siding with the citizens; but the minority, with the two speakers at their head, were for encouraging the army. Accordingly the two speakers, with sixty-two of the members, secretly retired from the house, and threw themselves under the protection of the army, then at Hounslow Heath. They were received with shouts and acclamations; their integrity was extolled; and a force of 20,000 men moved forward to reinstate them in the house. In the mean time the party which was left resolved to resist the encroachments of the army. They chose new speakers, gave orders for enlisting troops, ordered the trained bands to man the lines; and the whole city boldly resolved to resist the approaching force. But this resolution only held while the enemy was at a distance: for, when Cromwell appeared, all was obedience and submission: the gates were opened to him; the eleven impeached members were expelled; the mayor, sheriff, and three aldermen, were sent to the tower: several citizens, and officers of the militia, were committed to prison; the lines about the city levelled to the ground; and the command of the Tower given to Fairfax.

It now only remained to dispose of the king, who remained a prisoner at Hampton Court. The independent army, at the head of whom was Cromwell, on one hand, and the Presbyterians, in the name of both houses, on the other, treated with him separately in private. He had sometimes even hopes, that, in these struggles for power, he might have been chosen mediator in the dispute; and he expected that the kingdom at last, being sensible of the miseries of anarchy, would of its own accord be hushed into tranquillity. At this time he was treated with some marks of distinction; he was permitted to converse with his old servants; his chaplains were directed to attend him, and he celebrated divine service in his own way. But the most exquisite pleasure he enjoyed was in the company of his children, with whom he had several interviews. The effect of one of these interviews on the stern heart of CROMWELL, we have adverted to in that article. But these instances of respect were of no long continuance. As soon as the army had gained a complete victory over the house of commons, the king was treated not only with the greatest contumely, but was kept in continual alarms for his personal safety. The consequence of this was, that Charles at last resolved to withdraw from the kingdom. Accordingly, on the 11th of November 1647,

attended only by Sir John Berkeley, Ashburnham, and Leg, he privately left Hampton Court; and his escape was not discovered till nearly an hour after; when those who entered his chamber, found on the table some letters directed to the parliament, to the general, and to the officer who had attended him. Travelling all night he arrived next day at Tichfield, a seat of the earl of Southampton, where he knew he could entrust himself with the countess dowager. Before alighting at this place, he had gone to the sea-coast; and expressed great anxiety that a ship which he looked for had not arrived. The question now was, what measure should be next embraced. In the neighbourhood was the Isle of Wight, of which one Hammond was governor, a man entirely dependent on Cromwell, but the nephew of Dr. Hammond, the king's favorite chaplain, and of good general character. It was too promptly determined to have recourse to him in the present exigence: Ashburnham and Berkely were therefore despatched to the island, with orders not to inform Hammond of the place where the king lay concealed, till they had first obtained his promise not to deliver up his majesty, but restore him to his liberty, if he could not protect him. The promise would have been but a slender security: yet, even without exacting it, Ashburnham imprudently, if not treacherously, brought Hammond to Tichfield; and the king was obliged to put himself into his hands, and to attend him to Carisbrooke Castle in the Isle of Wight; where, though he was received with great demonstrations of respect and kindness, he was in reality a prisoner.

Cromwell now found himself upon the point of losing all the fruits of his former schemes, by having his own principles turned against himself. Among the Independents, who in general were averse to ecclesiastical subordination, a set of men grew up, called Levellers, who disallowed all subordination whatsoever, and declared that they would have no other chaplain, king, or captain, but Jesus Christ. So long as this was only directed against his enemies, Cromwell could tolerate and even applaud it; but he did not approve of it when applied to himself. Having intimation that the levellers were to meet, he unexpectedly appeared before them at the head of his red regiment, which had hitherto been deemed invincible. He demanded, in the name of God, what these meetings and murmurings meant. He expostulated with them upon the danger and consequence of their precipitant schemes, and desired them immediately to depart. Instead of obeying, however, they returned an insolent answer; when, rushing on them in great anger, he laid two of them dead at his feet: several others he caused to be hanged upon the spot, his guards dispersing the rest; and thus dissipated a faction, no otherwise criminal than in having followed his own example. Cromwell's authority soon after became irresistible, in consequence of a new and unexpected addition to his successes. The Scots, ashamed of the reproach of having sold their king, raised an army in his favor, the chief command of which was given to the earl of Hamilton: while Langdale, who professed himself at the head of the more bigoted party who had taken the covenant, marched at the head of his separate body, and both invaded the north of England. Though these two armies amounted to above 20,000 men, Cromwell hesitated not, at the head of his 8000 hardy veterans, to give them battle. He attacked them one after another; routed and dispersed them; took Hamilton prisoner; and, following the blow, entered Scotland, the government of which he settled entirely to his satisfaction. See CROMWELL. An insurrection in Kent was quelled by Fairfax with the same ease.

During these events, the king, who was kept a prisoner at Carisbrooke Castle, continued to negociate with the parliament, who now saw no other method of destroying the military power, but to bring into conflict again with that of the king. Frequent proposals for accommodation passed between them; but the great obstacle which stood in the way was the king's refusal to abolish episcopacy, though he consented to alter the liturgy. However, the treaty was still carried on with vigor, and the parliament for the first time seemed in earnest to conclude their negociations amicably. The army saw through their designs, and began to demand vengeance on the king. The unhappy monarch had been lately sent under confinement to Windsor; whence he was now conveyed to Hurst Castle in Hampshire. The parliament in the mean time began to issue ordinances for an effectual opposition to certain military encroachments, when they were astonished by a message from Cromwell, that he intended paying them a visit next day with his whole army; and in the mean time ordering them to raise him £40,000 on the city of London. The commons, though destitute of all hopes of prevailing, had still the courage to resist, and to attempt, in the face of the whole army, to finish the treaty they had begun with the king. They had taken into consideration the whole of his concessions; and, though they had formerly voted them unsatisfactory, they now renewed the consultation with great vigor. After a violent debate, which lasted three days, it was carried by a majority of 129 against eighty-three, that his concessions were a foundation for the houses to proceed upon in settling the affairs of the nation. This was the last attempt in his favor; for the next day colonel Pride, at the head of two regiments, blockaded the house; and seizing in the passage forty-one members, of the presbyterian party, sent them to a low room belonging to the house, that passed by the denomination of Hell. Above 160 members more were excluded; and none were allowed to enter but the most furious and determined of the Independents, in all not exceeding sixty. This atrocious invasion of parliamentary rights commonly passed by the name of Pride's purge, and the remaining members were called the Rump. These soon voted, that the transactions of the house a few days before were entirely illegal, and that their general's conduct was just and necessary. Nothing remained, to complete the wickedness of this Rump parliament, but to murder the king.

In this assembly, therefore, composed of the most obscure citizens, and officers of the army, a committee was appointed to bring in the

charges against the unhappy monarch; and, on their report, a vote passed declaring it treason in a king to levy war against his parliament. It was resolved, that a high court of justice should be appointed, to try the king on the charge of this newly invented treason. For form's sake, they desired the concurrence of the few remaining lords in the upper house; but there was virtue enough left in that body unanimously to reject the proposal. The commons, however, were not to be stopped by so small an obstacle. They voted that the concurrence of the house of lords was unnecessary, and that the people were the origin of all just power. To add to their zeal, a woman of Herefordshire, illuminated by prophetical visions, desired admittance, and communicated a revelation she pretended to have received from heaven. She assured them, that their measures were consecrated from above, and ratified by the sanction of the Holy Ghost; intelligence which gave them, it is said, great comfort. Colonel Harrison, the son of a butcher, was commanded to conduct the king from Hurst Castle to Windsor, and thence to London. Many who saw him on this journey were greatly affected at the change that appeared in his face and person. He had permitted his beard to grow; his hair was become venerably gray, rather by the pressure of anxiety than the hand of time; while the rest of his apparel bore the marks of misfortune and decay. All the exterior symbols of sovereignty were now withdrawn, and his attendants had orders to serve him without ceremony. He could not, however, be persuaded that his adversaries would bring him to a formal trial; but he every moment expected to be despatched by private assassination. From the 6th to the 20th of January was spent in making preparations for this extraordinary trial.

The court consisted of 133 persons named by the commons; but of these never above seventy met upon the trial. The members were chiefly composed of the principal officers of the army, most of them of very mean birth, together with some of the lower house, and a few citizens of London. Bradshaw, a lawyer, was chosen president; Coke was appointed solicitor for the people of England; Dorislaus, Steele, and Aske, were named assistants. The court sat in Westminster Hall. When the king was brought forward he was conducted by the mace-bearer to a chair placed within the bar. Though long detained a prisoner, and now produced as a criminal, he still maintained the dignity of a king. The charges being read by the solicitor, accusing him of having been the cause of all the bloodshed since the commencement of the war, Bradshaw told him that the court expected his answer, when the king began his defence with declining the authority of the court. He stated, that, having been engaged in treaty with his two houses of parliament, and having finished almost every article, he expected a different treatment from what he had now received. He perceived, he said, no appearance of an upper house, which was necessary to constitute a just tribunal. He insisted that he was himself the king and fountain of law, and consequently could not be tried by laws to which he had never given his assent; that, having been intrusted with the liberties of the people, he would not now betray them by recognising a power founded in usurpation; that he was willing, before a proper tribunal, to enter into the particulars of his defence; but that before them he must decline any apology for his innocence, lest he should be considered as the betrayer of, and not a martyr for, the constitution. Bradshaw, in order to support the authority of the court, insisted that they had received their authority from the people, the source of all right. He pressed the king not to decline the authority of a court that was delegated by the commons of England, and interrupted and overruled him in his attempts to reply. In this manner the king was three times produced before the court, and as often persisted in declining its jurisdiction. The fourth and last time he was brought before this self-created tribunal, as he was proceeding thither, he was insulted by the soldiers and the mob, who cried out, 'Justice! justice! Execution! execution!' but he continued undaunted. His judges having now examined some witnesses, by whom it was proved that the king had appeared in arms against the forces commissioned by parliament, they pronounced sentence against him. He seemed very anxious at this time to be admitted to a conference with the two houses, and it was supposed that he intended to resign the crown to his son: but the court refused compliance, and considered his request as an artifice to delay justice.

The behaviour of Charles under all these instances of low-bred malice was great, firm, and equal. In going through the hall from this execrable tribunal, the soldiers and rabble were again instigated to cry out, Justice and execution! They reviled him with the most bitter reproaches. Among other insults, one miscreant presumed to spit in the face of his sovereign. He patiently bore their insolence: 'Poor souls,' cried he, they would treat their generals in the same manner for sixpence.' Those of the populace, who still retained the feelings of humanity, expressed their sorrow in sighs and tears. A soldier more compassionate than the rest could not help imploring a blessing on his royal head: when an officer, overhearing him, struck the honest sentinel to the ground before the king: the latter only remarked 'that the punishment seemed to exceed the offence.' At his return to Whitehall, Charles desired permission to see his children, and to be attended in his private devotions by Dr. Juxon, late bishop of London. These requests were granted, and three days allowed him to prepare for execution. Every night between his sentence and execution, the king slept sound as usual:—the fatal morning being at last arrived, he arose early, and, calling one of his attendants, he bad him employ more than usual care in dressing him, for so great a solemnity. The street before Whitehall was the place destined for his execution. He was led through the banqueting house to the scaffold adjoining to that edifice, attended by his friend and servant, bishop Juxon, a man of the same mild and steady virtues with himself. The scaffold, which was covered with black, was guarded by a regiment of soldiers under the command of colo-

nel Tomlinson; and on it were to be seen the block, the axe, and two executioners in masks. The people, in crowds, stood at a distance. Surveying all these preparations with calm composure, the king, as he could not expect to be heard by the people at a distance, now addressed himself to the few persons who stood around him. He justified his own innocence in the late fatal wars: and observed, that he had not taken arms till after the parliament had shown him the example; and had no other object in his warlike preparations but to preserve that authority entire, which had been transmitted to him by his ancestors. But, though innocent towards his people, he acknowledged the equity of his execution, in the eyes of his Maker: he owned that he was justly punished for having consented to the execution of an unjust sentence against the earl of Strafford. He forgave all his enemies; exhorted the people to return to their obedience, and acknowledge his son as his successor; and signified his attachment to the Protestant religion as professed by the church of England. So strong was the impression made by his dying words, on those who could hear him, that colonel Tomlinson himself, to whose care he had been committed, acknowledged himself a convert. At one blow his head was severed from his body. The assistant executioner then, holding up the head, exclaimed, 'This is the head of a traitor.' Grief, indignation, and astonishment, are said to have been strongly expressed, not only among the spectators, but throughout a great part of the nation, at this unparalleled execution. Each blamed himself either with active disloyalty to the king, or a passive compliance with his destroyers: many of those very pulpits that used to resound with insolence and sedition were now bedewed with tears of unfeigned repentance; and great numbers expressed their detestation of those dark hypocrites, who, to satisfy their own ambition, involved the whole nation in their guilt. Charles was executed fifty-two minutes after one, P. M. on the 30th of January, 1649, in the forty-ninth year of his age, and twenty-fourth of his reign. He was of a middling stature, robust, and well-proportioned. His visage was pleasant, but melancholy; and it is probable, that the continual troubles in which he was involved might have made that impression on his countenance. The king, the moment before he stretched out his neck to the executioner, having said to Juxon, with a very earnest accent, 'Remember,' great mysteries were supposed to be concealed under that word: and the generals vehemently insisted that the prelate should inform them of the king's meaning. Juxon told them, that the king, having frequently charged him to inculcate on his son the forgiveness of his enemies, had taken this opportunity in the last moment of his life, when his commands, he supposed, would be regarded as sacred and inviolable, to reiterate that desire.

2. *Of Great Britain under the Commonwealth.*—The dissolution of the monarchy of England soon followed the death of the monarch. When the peers met, on the day appointed in their adjournment, they entered upon business; and sent down some votes to the commons, of which the latter deigned not to take the least notice. On the 6th of February the commons voted, that the house of lords was 'useless and dangerous, and the kingly office unnecessary and burdensome.' They also voted it high treason to acknowledge Charles Stuart, son of the late king, as successor to the throne. A great seal was made; on one side of which were engraven the arms of England and Ireland, with this inscription, 'The great seal of England.' On the reverse was represented the house of commons sitting, with this motto: 'On the first year of freedom, by God's blessing restored, 1649.' The forms of all public business were changed from being transacted in the king's name, to that of the keepers of the liberties of England. The court of King's Bench was called the court of Public Bench. The king's statue in the exchange was thrown down; and on the pedestal these words were inscribed: Exit tyrannus, regum ultimus; 'The tyrant is gone, the last of the kings.' The commons, it is said, intended to bind the princess Elizabeth apprentice to a button-maker; the duke of Gloucester was to be taught some other mechanical employment: but the former soon died of grief, as is supposed, for her father's tragical end; the latter was sent beyond sea by Cromwell. The commons next proceeded to punish those who had been most remarkable for their attachment to their late sovereign. The duke of Hamilton, lord Capel, and the earl of Holland, were condemned and executed; the earl of Norwich and Sir John Owen were also condemned, but afterwards pardoned. These proceedings irritated the Scots: their loyalty began to return; and the insolence of the Independents, with their victories, inflamed them still more. They determined, therefore, to acknowledge prince Charles for their king, but at the same time to abridge his power, by every limitation which they had attempted to impose on his father. Charles, after the death of his father, having passed some time at Paris, and seeing no prospect of assistance from that quarter, was glad to accept of their conditions; and had the mortification to enter the gate of Edinburgh, while the limbs of his faithful adherent, Montrose, were still exposed there. He soon found himself little better than a prisoner, being surrounded and incessantly importuned by the clergy, from whom, and his other tormentors, he at first attempted to escape: but was overtaken and brought back; when he testified his repentance for what he had done. Cromwell, in the mean time, who had been appointed by the parliament to command the army in Ireland, prosecuted the war in that kingdom with his usual success. He had to encounter the royalists, commanded by the duke of Ormond, and the native Irish led on by O'Neal. These he quickly overcame; and most of the towns, intimidated by his successes, opened their gates at his approach. He was on the point of reducing the whole kingdom, when he was recalled by the parliament, as we have seen in his life, to defend England against the Scots; and fought the celebrated battles of Dunbar and Worcester.

After the battle of Worcester, Charles entered upon a series of the most romantic adventures. His hair being cut off, the better to disguise his

person, he worked for some days in the habit of a peasant, cutting faggots. He next made an attempt to retire into Wales, under the conduct of one Pendrel, a poor farmer, who was sincerely attached to his cause. In this attempt, however, he was disappointed; every pass being guarded to prevent his escape. Being obliged to return, he met one colonel Careless, who had escaped the carnage at Worcester. In his company the king was obliged to climb a spreading oak; among the thick branches of which they spent the day together, while they heard the soldiers of the enemy in pursuit of them below. Thence he passed with imminent danger, and through all the varieties of hunger, fatigue, and personal suffering, to the house of colonel Lane, a zealous royalist in Staffordshire. There he deliberated about the means of escaping into France; and, it being decided that he should endeavour to reach the port of Bristol, he rode thither before this gentleman's sister, on a visit to a Mrs. Norton. During this journey, he every day met with persons whose faces he knew; and at one time passed through a whole regiment of the enemy's army. On his arrival the butler, being sent to his chamber with refreshments, recollected his features; and, falling on his knees, exclaimed, 'I am rejoiced to see your majesty.' The king was alarmed; but, strictly enjoining the man to keep the secret from his master, the honest fellow kept his word: and, no ship being found that would sail for France for a month, the king now passed on to the house of colonel Wyndham in Dorsetshire. Pursuing from thence his journey to the sea side, he had once more a very narrow escape. The day had been appointed for a solemn fast; and a fanatical weaver, who had been a soldier in the army, was preaching against royalty in a chapel fronting the inn where the king had stopped. Charles, to avoid suspicion, was himself among the audience. It happened that a smith, of the same principles with the weaver, had been examining the horses belonging to the passengers, and came to assure the preacher that he knew by the fashion of the shoes that one of the strangers' horses came from the north. The preacher immediately affirmed that this horse could belong to no other than Charles Stuart, and instantly went with a constable to search the inn. But Charles had in the mean time taken the alarm, and left the inn before the constable's arrival. He at last embarked at Shoreham in Sussex; and, after forty-one days concealment, arrived safely at Feschamp in Normandy.

Cromwell in the mean time returned in triumph; and his first care was to depress the Scots, on account of their having withstood the work of the gospel, as he called it. An act was passed for abolishing royalty in Scotland, and annexing that kingdom as a conquered province to the English commonwealth. It was empowered, however, to send some members to the English parliament. Judges were appointed to distribute justice; and the people of that country, now freed from the tyranny of the ecclesiastics, were not much dissatisfied with the new government. All parts of the British dominions being thus reduced under perfect subjection to the parliament, he next resolved to chastise the Dutch, who had given some slight causes of complaint Dr. Dorislaus, who had been one of the late king's judges, being sent by the parliament as their envoy to Holland, was assassinated by one of the royal party who had taken refuge there. Some time after, Mr. Stephen John, their ambassador, was insulted by the friends of the prince of Orange. These were thought sufficient reasons for a declaration of war against that republic by the commonwealth of England.

The parliament greatly depended at this time on the activity and courage of Blake, their admiral. On the other hand, the Dutch opposed to him their famous admiral Van Tromp, to whom their republic has never since produced an equal. Many were the engagements between these celebrated admirals. At last the Dutch, who felt great disadvantages by the loss of their trade, and by the total suspension of their fisheries, were willing to treat for peace. The parliament, however, gave them an evasive answer. They seem studiously to have kept their navy in exercise as long as they could; judging, that, while the force of the nation was exerted by sea, it would diminish the formidable power of Cromwell by land. But terms were not long kept between them. He persuaded the officers to present a petition for payment of arrears, and redress of grievances; desiring the parliament also to consider how many years they had sat, and what pretensions they had formerly made of their designs to new model the house. They alleged that it was now full time to give place to others; and however meritorious their actions might have been, yet, the rest of the nation had some right, in their turn, to manifest their patriotism in defence of their country. The house was highly offended: they appointed a committee to prepare an act ordaining that all persons who presented such petitions for the future should be deemed guilty of high treason. To this the officers made a very warm remonstrance, and the parliament as angry a reply. We once more refer to the article CROMWELL, for the result of these disputes, and the history of his final exaltation.

At last the Dutch, having been humbled by repeated defeats, were forced to sue for peace. Cromwell obliged them on this occasion to abandon the interest of the king's son, to pay £85,000 as an indemnification for former expenses, and to restore, to the English East India Company, a part of those dominions of which they had been dispossessed by the Dutch, during the former reign. The ministry of France also paid the utmost deference to the protector: and he having lent that court a body of 6000 men, to attack the Spanish dominions in the Netherlands, the French put Dunkirk into his hands as a reward for his attachment. By the heroic exertions of the celebrated admiral Blake, he also humbled Spain; as well as the Algerines and Tunisians. Penn and Venables, two other admirals, made an attempt on the island of Hispaniola; but, failing of this, they steered to Jamaica, which was surrendered to them without a blow.

It is not to be supposed, that a numerous

standing army could be maintained, and so many foreign wars carried on, without incurring extraordinary expenses. The protector therefore called his first and second parliaments, guards being placed at the door of the latter, that none might be admitted but such as produced a warrant from his council. The principal design of convening this assembly was, that they should offer him the crown. His creatures, therefore, took care to insinuate the confusion that arose in legal proceedings without the name of a king; that no man was acquainted with the extent or limits of the present magistrate's authority, but those of a king had been well ascertained by the experience of ages. On the motion being at last formally made in the house, it was easily carried, and nothing was wanting but Cromwell's own consent to have his name enrolled among the sovereigns of England. This consent, however, he avoided to give. The conference carried on with the members, who made him the offer, seems to argue that he was desirous of being compelled to accept it, but it ended in his total refusal. With all these proffered honors, and all his real despotic power, the situation of Cromwell, we have seen, was far from being enviable. Conspiracies were formed against him, and it was finally taught upon principle, that not only was his death desirable, but his assassination would be meritorious. Cromwell is said to have read the celebrated pamphlet of colonel Titus, Killing no Murder, and never to have smiled afterwards. At last he was delivered from a life of horror and anxiety by a tertian ague, of which he died September 3rd, 1658, after having usurped the government nine years. For other particulars of the life and character of this extraordinary man, see CROMWELL.

Oliver Cromwell was nominally succeeded in his office of protector by his son Richard, who immediately called a parliament. To this assembly the army presented a remonstrance, desiring some person for their general in whom they could confide. The house voted such meetings and remonstrances unlawful: upon which the officers, surrounding Richard's house, forced him to dissolve the parliament; and soon after he signed an abdication of the government. His younger brother Henry, who had been appointed to the command in Ireland, followed Richard's example, and resigned his commission also without striking a blow.

The officers, left at liberty, resolved to restore the Rump parliament, as it was called, consisting of that remnant of the commons which had condemned Charles. They were no sooner reinstated in their authority, however, than they began to humble the army by cashiering some of the officers, and appointing others on whom they could have more dependence. The officers at last resolved to dissolve the assembly. Lambert, one of the generals, drew up a body of troops, in the streets which led to Westminster Hall; and, when the speaker Lenthall proceeded in his carriage to the house, he ordered the horses to be turned, and very civilly conducted him home. The other members were likewise intercepted; and the army returned to their quarters to observe a solemn fast, which generally either preceded or attended their outrages. A committee was then elected, of twenty-three persons, of whom seven were officers. These they pretended to invest with sovereign authority.

But a stronger influence was at work in the north. Upon hearing that the officers had by their own authority dissolved the parliament, general Monk, then in Scotland with 8000 veteran troops, protested against the measure, and resolved to defend the national privileges. As soon as he put his army in motion, he found himself eagerly sought after by all parties; but so cautious was he of declaring his mind, that, to the very last, it was impossible to know on which side he designed to appear. A remarkable instance of this was, that, when his own brother came to him, with a message from lord Granville in the name of the king, he refused all intercourse with him. On the other hand, hearing that the officers were preparing an army to oppose him, Monk amused them with negociations; and the people, finding themselves not entirely defenceless, began to declare for a free parliament. The Rump, now also finding themselves invited to sit by the navy and part of the army, again ventured to resume their seats, and to thunder votes against the officers, by whom they had been ejected. Without taking any notice of Lambert, they sent orders to the troops to repair immediately to the garrisons appointed for them. The soldiers obeyed; and Lambert found himself deserted by his whole army. Monk, in the mean time, proceeded with his troops to London; the gentry, on his march, flocked round him with addresses, and expressing their desire for a new parliament. At St. Albans, within a few miles of the capital, he sent the parliament a message, desiring them to remove such forces as remained in London to country quarters. Some of the regiments willingly obeyed this order; and such as did not Monk ejected by force: after which he quartered his army in Westminster. The house now voted him thanks for his services: when he desired them to call a free parliament; which soon led the citizens to refuse submission to the existing government. They resolved to pay no taxes until the members formerly excluded by colonel Pride should be replaced. On this Monk arrested eleven of the most obnoxious of the common council; broke the gates and portcullises; and, having exposed the city to contempt, returned in triumph to Westminster. The next day, however, he made an apology for this conduct, and promised for the future to cooperate with the mayor and common council. The commons were now greatly alarmed. They tried every method to draw off the general from his new alliance. Some of them even promised to invest him with the dignity of supreme magistrate. But Monk was too just, or too wise, to hearken to such wild proposals: he resolved to restore the secluded members, and by their means to bring about a new election. The restoration of the expelled members was easily effected; and their number was so much superior to that of the Rump, that the chiefs of this last party now thought proper in their turn to

withdraw. The restored members began with repealing all those orders by which they had been expelled. They renewed and enlarged the general's commission; fixed a proper stipend for the support of the fleet and army; and, having passed these votes, dissolved themselves, and gave orders for the immediate assembling a new parliament. Mean while, Monk new-modelled the army to his purposes. Some officers, by his direction, having presented him with an address, in which they promised to obey implicitly the orders of the ensuing parliament, he ordered it to be signed by all the different regiments; and this furnished him with a pretence for dismissing those by whom it was rejected. In the midst of these transactions, Lambert, who had been arrested, escaped from the Tower, and began to raise forces; Monk therefore despatched against him colonel Ingoldsby, with his own regiment; and, though Lambert had taken possession of Daventry with four troops of horse, the greater part of them joined Ingoldsby; to whom he himself surrendered. Monk persisted all this time in his reserve; and referred all the communications of the king to one Morrice, a gentleman of Devonshire. At last however he disclosed his favorable intentions towards the exiled monarch to Sir John Granville, who held a commission from him. In consequence of this, the king left the Spanish territories, where he narrowly escaped being detained, and retired to Holland, to wait the issue of his overtures. The new parliament being assembled, Sir Harbottle Grimstone, a well-known royalist, was chosen speaker; and Monk gave directions to Annesly, president of the council, to inform them, that one Sir John Granville, a servant of the king's, had been sent over by his majesty, and was now at the door with a letter to the house. This message was received with the utmost joy. Granville was called in, the letter read, and the king's proposals immediately accepted. He offered a general amnesty to al. persons, and without any exceptions, but what should be made by parliament. He promised to indulge scrupulous consciences with liberty in matters of religion; to leave to the examination of parliament the claims of all such as possessed lands with contested titles; to satisfy the army under general Monk with respect to their arrears, and to give the same rank to his officers when they should be enlisted in the king's army; and to confirm all these concessions by act of parliament. In consequence of this agreement between the king and parliament, Montague the English admiral waited on king Charles, to inform him that the fleet expected his orders at Scheveling. The duke of York immediately went on board, and took the command as lord high admiral. The king embarked, and, landing at Dover, was received by the general, whom he tenderly embraced. He entered London in 1660, on the 29th of May, which was his birth-day; and was attended by an innumerable multitude of people, who testified their joy by the loudest acclamations.

3. *Of the Stuart dynasty from the Restoration to the expulsion of James II.*—Charles II. was only thirty years of age at the Restoration. Being naturally of an engaging disposition, he soon became the favorite of all ranks, and his first measures were calculated to give universal satisfaction. He seemed desirous of losing the memory of past animosities, and of uniting every party in affection for their prince and country. In his council were found the most eminent men of the nation, without regard to former distinctions. The presbyterians shared this honor equally with the royalists. Calamy and Baxter, presbyterian clergymen, were even made chaplains to the king. Admiral Montague was created earl of Sandwich, and Monk duke of Albemarle. Morrice, the general's friend, was appointed a secretary of state. The parliament, having been summoned without the king's consent, received at first only the title of a convention; and it was not till after an act passed for that purpose, that they were acknowledged by the former title. Both houses now owned the guilt of the late rebellion, and gratefully received in their own name, and in that of all his subjects, his majesty's gracious pardon and indemnity. The king, as we have seen, had promised an indemnity to all criminals, but such as should be excepted by parliament: he now issued a proclamation, declaring, that such of the late king's judges as did not surrender themselves within fourteen days should receive no pardon. Nineteen surrendered; some were taken in their flight; others escaped beyond sea. The peers seemed inclined to great severity on this occasion; but were restrained by the king, who in the most earnest terms it is said pressed the act of general indemnity. After repeated solicitations, the act of indemnity passed both houses, with the exception of those who had an immediate hand in the king's death. Even Cromwell, Ireton, and Bradshaw, though dead, were considered as proper objects of resentment: their bodies were dug from their graves; dragged to the place of execution; and, after hanging some time, buried under the gallows. Of the rest who sat in judgment on the late monarch's trial, some were dead, and some thought worthy of pardon. Ten only, out of eighty, were adjudged to suffer death; and these were enthusiasts who had all along acted from principle, and who, in the general spirit of rage excited against them, showed a fortitude that would have done honor to any cause. The army was disbanded, that had for so many years governed the nation; at this time prelacy, tithes, and all the ceremonies of the church of England, were restored; the king at the same time endeavouring to preserve the air of moderation and neutrality. In fact, with regard to religion, Charles in his gayer hours was a professed deist; but in the latter part of his life he evidently inclined to the Catholic persuasion, and is known to have died a Catholic. On the 13th of September died the young duke of Gloucester, a prince of great hopes. The king was never so deeply affected by any incident in his life. The princess of Orange, having come to England to partake of the joy attending the restoration of her family, with whom she lived in great friendship, soon after also sickened and died. The queen mother now

paid a visit to her son, and obtained his consent to the marriage of the princess Henrietta with the duke of Orleans, brother to the French king.

Parliament having met on the 6th November, and carried on business with the greatest unanimity and dispatch, was dissolved by the king on the 29th of December, 1660. During the reign of this prince the spirit of the people took a direction totally opposite to that of the time of Charles I. The latter found his subjects animated with a ferocious though ignorant zeal for liberty. They knew not what it was to be free, and therefore imagined that liberty must at once result from throwing off the royal authority. They gained their point: the unhappy monarch was dethroned and murdered; but instead of liberty they found themselves oppressed by greater tyranny than ever. Being freed from this by the Restoration, nothing now prevailed but as unbounded a spirit of submission; and Charles rendered himself at last almost an absolute monarch. A revolution equally great took place with regard to religious matters. During the former reigns a spirit of the most gloomy enthusiasm had overspread the land, and men imagined the Deity was only to be pleased by their denying themselves every social pleasure. The extreme hypocrisy of Cromwell, and the absurd conduct of many of his associates, showed that this was not religion; but, in avoiding this error, they ran into one equally dangerous; and every thing religious or serious was discountenanced. Nothing but riot and dissipation succeeded. The court set the example; scenes of gallantry and festivity were the order of the day; the horrors of the late war became the subject of ridicule; the formality of the sectaries was displayed on the stage, and even laughed at from the pulpit. In short, the best mode of religion now was to have as little as possible; and to lay aside not only the enthusiasm of the sectaries, but even the common duties of morality. In the midst of this boundless licentiousness, the old and faithful adherents of the royal family were left unrewarded; and the act of indemnity was justly said to have been an act of forgiveness to the king's enemies, and of oblivion to his friends. In 1661 the Scottish and English parliaments seemed to vie with each other in their prostrations to the king. In England monarchy and episcopacy were raised to the greatest splendor. The bishops were permitted to resume their seats in the house of peers; all military authority was acknowledged to be vested in the king. He was empowered to appoint commissioners for regulating corporations, and expelling such members as had intruded themselves by violence, or professed principles dangerous to the constitution: and an act of uniformity was passed, by which it was required, that every clergyman should be re-ordained, if he had not before received episcopal ordination; that he should declare his assent to every thing contained in the book of Common Prayer, and should take the oath of canonical obedience. In consequence of this law, above 2000 of the presbyterian clergy resigned their cures at once. In Scotland the right of the king was asserted in the fullest and most positive terms to be hereditary, divine, and indefeasible. His power was extended to the lives and possessions of his subjects, and from his original grant was said to come all that they enjoyed. They voted him an additional revenue of £40,000; and all their former violences were spoken of with the utmost detestation. This intoxication of loyalty, however, at last began to wear off. The king's profusion and extravagance in his pleasures, together with his indolence in government, furnished opportunities of making very disadvantageous comparisons between him and Cromwell. These animosities were heightened by the ejected clergy, especially when they saw Dunkirk, which had been acquired during the usurper's vigorous administration, sold to the French, and that merely to supply the king's extravagance. From this time (August 17th 1662) Charles found himself perpetually opposed, and his parliaments granted supplies much more reluctantly than before. A few months previously the continual exigencies of the king had forced him to conclude a marriage with the Infanta of Portugal for the sake of her portion, which was £500,000 in money, together with the fortress of Tangier in Africa, and Bombay in the East Indies. The chancellor Clarendon, the dukes of Ormond and Southampton, urged many reasons against this match, particularly the likelihood of her never having any children; but all their objections could not prevail, and Clarendon, therefore, set himself to promote it. Still, however, the king's necessities were greater than his supplies. He therefore resolved to sacrifice his minister, the great Clarendon, to the resentment of the parliament, to whom he was become obnoxious, in order to procure more supplies. On the 12th June, 1663, he sent for the commons to Whitehall; complained of their inattention to him, and acquainted them with a conspiracy to seize the castle of Dublin. Four subsidies were immediately granted, and the clergy in convocation followed the example of the commons. On this occasion the earl of Bristol ventured to impeach the chancellor in the house of peers; but, as he did not support his charge, the affair was dropped for the present. With a view probably of having the money to be employed for that purpose in his hands, Charles was induced to declare war against the Dutch in 1664.

In this contest the English, under the command of Sir Robert Holmes, expelled the Dutch from Cape Corse Castle on the coast of Africa, and seized on their settlements of Cape Verd and the Isle of Goree. Sailing thence to America, the admiral possessed himself of Nova Belgia, since called New York; and which continued subject to Britain, till the American revolution. On the other hand, De Ruyter, the Dutch admiral, dispossessed the English of all their settlements in Guinea except Cape Corse. He afterwards sailed to America, where he attacked Barbadoes and Long Island, but was repulsed. Soon after, the two most considerable fleets of each nation met; the one under the duke of York, to the number of 114 sail; the other commanded by Opdam, admiral of the Dutch navy, of nearly equal force. The engagement began at four in the morning, and both sides fought with

equal intrepidity. The duke was in the hottest part of the engagement, and behaved with great spirit, while many of his lords and attendants were killed around him. In the heat of the action the Dutch admiral's ship blew up; which so discouraged and disheartened the enemy, that they fled towards their own coast, having thirty ships sunk and taken, while the victors lost only one. This success so much excited the jealousy of the neighbouring states, that France and Denmark immediately resolved to protect the Dutch republic. Admiral De Ruyter, on his return from Guinea, was appointed, at the head of seventy-six sail, to join the duke of Beaufort the French admiral, who it was supposed was then entering the British Channel from Toulon. The duke of Albemarle and prince Rupert now commanded the British fleet, of seventy-four sail. Albemarle detached the prince with twenty ships to oppose the duke of Beaufort; against which piece of rashness Sir George Ayscue in vain protested. The fleets thus engaging, upon unequal terms, a memorable battle ensued, in which the Dutch admiral Evertzen was killed by a cannon ball, one of their ships was blown up, and three of the English ships taken. The combatants were parted by darkness. The next day they renewed the battle with incredible fury. Sixteen fresh ships joined the Dutch; and the English were so shattered, that their fighting ships were reduced to twenty-eight. Upon retreating towards their own coast the Dutch followed them; where another dreadful conflict was beginning, but closed by the darkness of the night. The morning of the third day the English continued their retreat, and Albemarle came to the desperate resolution of blowing up his own ship rather than submit to the enemy, when he found himself happily reinforced by prince Rupert with sixteen ships of the line. By this time it was night; the next day the fleets came once more to a close combat, which was continued with great violence, till they were parted by a mist. Both sides claimed the victory, but the Dutch certainly had the advantage. Another bloody engagement happened soon after, with larger fleets on both sides, commanded by the same admirals. In this the Dutch were vanquished; but they were soon in a condition to face their enemies, by the junction of Beaufort the French admiral. The Dutch fleet now appeared in the Thames, and the whole British nation was thrown into the utmost consternation: a chain had been drawn across the river Medway; and some fortifications added to the forts along the bank. But all these were unequal to the present force: Sheerness was soon taken; the Dutch passed forward and broke the chain, though fortified by some ships sunk by Albemarle's orders, destroying the shipping in their passage, and advanced, with six men of war and five fire-ships, as far as Upnore Castle, where they burned three men of war. It was now expected that the Dutch might sail up next tide to London bridge, and destroy not only the shipping, but even the buildings of the metropolis. The Dutch, however, were unable to effect this, from the failure of the French, who had promised them assistance. Spreading, therefore, an alarm along the coast, and having insulted Norwich, they returned to their own shores. During these transactions the plague raged in London, and destroyed 100,000 of the inhabitants. This calamity was soon followed by another equally dreadful. A fire broke out in a baker's house in Pudding Lane, near the bridge, and spread with such rapidity that no efforts could extinguish it, till it laid in ashes the most considerable part of the city; but not a single life, it is said, was lost. These complicated misfortunes did not fail to excite many murmurs among the people: the blame of the fire was laid on the Papists: the Dutch war was exclaimed against as unsuccessful and unnecessary; and Charles himself began to be sensible that all the ends for which he had undertaken the war were likely to be entirely frustrated. Instead of being able to lay up money for himself, the supplies of parliament had hitherto been so scanty that he found himself considerably in debt. A treaty, therefore, was set on foot, which was concluded at Breda on the 21st of July, 1667, by which the only advantage gained for the country was, the cession of the colony of New York. It was therefore judged disgraceful, and the blame of it thrown entirely upon the earl of Clarendon. Along with this, he was charged with the sale of Dunkirk; the bad payment of the seamen; the disgrace by the Dutch fleet; and his own ambition. His daughter, while yet in Paris, had commenced an amour with the duke of York; and, under a solemn promise of marriage, had admitted him to her bed. Her lover, however, afterwards married her; but this act of virtue in the prince was imputed as a crime to Clarendon. Clarendon was soon therefore deprived of the the seals, and impeached; and thought proper to withdraw into France. Soon after the king formed an alliance with Holland and Sweden, to prevent the French king from completing his conquest of the Netherlands. The king now began to act in a very arbitrary manner. He had long wished to extend his prerogative, and to be able to furnish himself with whatever sums he might want for his pleasures, and therefore was most likely to be pleased with those ministers who could flatter both his wishes. These he found in Clifford, Ashley, Buckingham, Arlington, and Lauderdale, a junto distinguished by the name of the Cabal; a word formed by the initials of their names. The first effect of their advice was, a secret alliance with France, and a rupture with Holland. Soon after this the duke of York declared himself a Papist; and liberty of conscience was proclaimed to all sectaries, whether dissenters or papists: a proclamation was also issued containing very rigorous orders for the impressment of seamen; and another full of menaces against those who should speak unduti fully of his majesty's measures, &c. These measures, however, gave very great and just offence to the people; but they were especially alarmed at an alliance with France, and justly afraid of the treachery of that court. On the 28th of May, 1672, the English fleet under the duke of York was surprised by the Dutch in Southwold Bay. About 8 A. M. began a most furious engagement. The gallant Sandwich, who commanded the

English van, drove his ship into the midst of the enemy, beat off the admiral that ventured to attack him, sunk another ship that attempted to board him, and three fire-ships that offered to grapple with him. Though his vessel was torn with shot, and out of 1000 men there only remained 400, he still continued to fight. At last a fire-ship, more fortunate than the rest, having laid hold of his vessel, her destruction became inevitable, and the earl himself was drowned in attempting to escape. Night parted the combatants; the Dutch retired and were not followed by the English. The loss sustained by the two maritime powers was nearly equal; but the French suffered very little, not having entered into the heat of the engagement. It was even supposed that they had orders for this conduct, and to spare their own ships, while the Dutch and English should weaken each other by their mutual exertions. The combined powers were much more successful against the Dutch by land. Louis XIV. conquered all before him, crossed the Rhine, took the frontier towns of the enemy, and threatened the new republic with a final dissolution. Terms were proposed to them by the conquerors, which would have deprived them of all power of resisting an invasion from France by land. Those of Charles exposed them equally to every invasion by sea. At last the murmurs of the English at seeing this brave and industrious people, the supporters of the protestant cause, totally sunk and on the brink of destruction, were too loud not to reach the king. He was obliged to call a parliament, to take the sense of the nation upon his conduct; and he soon saw how his subjects stood affected. Parliament began business with repressing some of the king's extraordinary exertions of his prerogative, and establishing uniformity in religious matters. The celebrated Test act was passed: which, besides taking the oaths of allegiance and supremacy, imposed the receiving of the sacrament once a year in the established church, on all persons in place or power. As the dissenters also had seconded the efforts of the commons, against the king's declaration of indulgence to Roman Catholics, a bill was passed for their ease and relief; which, however, went with difficulty through the house of peers. The Dutch, in the mean time, continued to defend themselves with such valor that the commons began to despair of success. They therefore resolved that the standing army was a grievance: they next declared that they would grant no more supplies to carry on the Dutch war, unless it appeared that the enemy were so obstinate as to refuse all reasonable conditions. To cut short these altercations, the king resolved to prorogue the parliament; and, with that intention, went to the house of peers, whence he sent the usher of the black rod to summons the commons to attend. It happened that the usher and the speaker met at the door of the house; but, the speaker being within, some of the members suddenly shut the door, and cried 'To the chair.' Upon which the following motions were carried in a tumultuous manner:—That the alliance with France was a grievance; that the evil counsellors of the king were a grievance; that the earl of Lauderdale was a grievance: and then the house rose in great confusion. The king, finding that he could expect no supply from the commons for carrying on the war, resolved to make a separate peace with the Dutch, on terms which they had proposed by the Spanish ambassador. For form's sake he asked the advice of parliament, who concurring heartily in his intention, a peace was accordingly concluded.

The prepossession which Charles had all along shown for France, and his manifest inclination upon all occasions to attach himself to that court, had given great offence. Other circumstances also co-operated to produce general discontent. The toleration of Catholics, so much wished for by the king; the bigotry of the duke of York, the heir apparent to the crown, and his zeal for the propagation of the Catholic religion; excited a general and just apprehension that the Protestant religion was in danger. These discontents were increased and fomented by designing men, who, to promote their own interests, did not scruple to advance the grossest falsehoods. In 1678 an account of a plot formed by the Papists, for destroying the king and the Protestant religion, was given in by one Kirby a chemist, Dr. Tong, a weak credulous clergyman, and Titus Oates, who had likewise been a clergyman, but was a most abandoned miscreant. The circumstances attending this pretended discovery were so perfectly incredible, that it appears amazing how any person of common sense could give ear to them. Nevertheless, so much were the minds of the nation in general inflamed against the Catholics, at this time, that it produced the destruction of several individuals of the Romish persuasion, and a universal massacre of that sect was apprehended. The parliament, who ought to have repressed these falsehoods, and brought back the people to calm enquiry, were found more credulous than even the people themselves. The cry of plot was echoed from one house to the other; the country party could not slip so favorable an opportunity of managing the passions of the people; and the courtiers were afraid of being thought disloyal if they should doubt the guilt of those who were accused of designs against the king's person. Danby, the prime minister himself, persisted in his enquiries, notwithstanding the king's desire to the contrary. Charles himself, who was the person that ought to have been most concerned, was the only one who treated it with contempt. Nothing, however, could stop the popular fury; and for a time the king was obliged to give way to it. During this uproar, the lord treasurer Danby was impeached in the house of commons, by Seymour the speaker. The principal charge against him was, his having written a letter to Montagu, the English ambassador at Paris, directing him to sell the king's good offices at the treaty of Nimeguen, to the king of France, for a sum of money. Though the charge was just, Danby had the happiness to find the king resolved to defend him. Charles assured the parliament, that, as he had acted in every thing by his orders, he held him entirely blameless; and, though he would deprive him of all his employments, yet he would positively insist on his personal safety. The lords were

obliged to submit; though they continued to impeach him, till Danby was sent to the Tower. These proceedings were carried on by the house of commons that had continued undissolved for above seventeen years.

Charles at last called a new parliament, which, however, proved as unmanageable as the preceding. The members, resolved to check the growth of popery by striking at the root of the evil, brought in a bill for the total exclusion of the duke of York from the crown of England and Ireland, which passed the lower house by a majority of seventy-nine; they next voted the king's standing army and guards to be illegal; they proceeded to establish limits to the king's power of imprisoning delinquents; and had the great merit of passing the celebrated statute called the Habeas Corpus Act, which confirms the subject in an absolute security from oppressive power.

During these commotions the duke of York had retired to Brussels; but an indisposition of the king brought him back to England, to be ready in case of any sinister accident to assert his right to the throne. After prevailing upon his brother to disgrace his natural son the duke of Monmouth, who was now become very popular, he himself retired to Scotland, to strengthen his interests in that part of the empire. This secession still more inflamed the country party, who were strongly attached to the duke of Monmouth, and were resolved to support him against the duke of York. Mobs, petitions, pope-burnings, &c., followed, and were employed to keep up the terror of popery, and alarm the court. The parliament had encouraged various tribes of informers, which increased the number of these miscreants, conspiracies were more numerous; plot was set up against plot; and the people were kept suspended in the most dreadful apprehensions. The nation now came to be distinguished into petitioners and abhorrers, and Whig and Tory were at this time first used as terms of reproach.

Being apprised of the tendency of presbyterian principles to a republican form of government, Charles, like his predecessors, had long endeavoured to introduce episcopacy into Scotland. The rights of patrons had for some years been abolished; and the power of electing ministers had been vested in the kirk sessions and lay elders: but it had of late been enacted, that all incumbents who had been admitted upon this title should receive a presentation, and be instituted anew by the bishop, under the penalty of deprivation. In consequence of this, 350 parishes were at once declared vacant. New ministers were sought for all over the kingdom, and none, however vicious or ignorant, were rejected. The people, as might have been expected, were displeased to the highest degree; they resolved, however, to give no sign of mutiny or sedition, notwithstanding their discontent. This submission made it foolishly imagined that they would submit altogether if they were worse treated. In 1661 a severe act was passed in England against conventicles, and this severity was imitated by the Scottish parliament. Military force was next let loose. Wherever the people had generally forsaken their churches, the guards were quartered throughout the country, who, without any proof, or legal conviction, demanded fines from the people for being absent from church; and quartered soldiers on the supposed criminals till they received payment. An insurrection being dreaded during the Dutch war, new forces were levied, and entrusted to the command of Dalziel and Drummond, men of very cruel dispositions. Representations were now made to the king, who promised some redress. But his lenity came too late. In 1668 the people rose in arms. They surprised Turner, the English commander, in Dumfries, and resolved to have put him to death; but, finding his orders to be more violent than his execution of them, they spared his life. At Lanark they renewed the covenant, and published their manifesto; professing at the same time their submission to the king. Their force did not exceed 2000 men; and, though the country in general bore them great favor, men's spirits were so subdued, that the insurgents could expect no great increase of numbers. Dalziel took the field to oppose them. The number of the covenanters was now reduced to 800, and these no way capable of contending with regular forces. Having advanced near Edinburgh, they attempted to find their way back into the west by the Pentland hills; but were here attacked by the king's troops, and received the first charge very resolutely; but this was all the action. Immediately they fell into confusion and fled. About forty were killed on the spot, and 130 taken prisoners. So early as the year 1661, the presbyterians had deputed one Sharp, to lay their grievances before the king. Instead of this, their deputy abandoned their cause altogether, became their violent enemy, and as a reward of his treachery was made archbishop of St. Andrew's. After the battle of Pentland hills, this renegado, as the Scottish historians call him, was the foremost to take vengeance on the unhappy insurgents, whose oppressed state and inoffensive behavior had made them objects of universal compassion. Ten were hanged on one gibbet in Edinburgh; thirty-five before their own doors: they might all have saved their lives, if they would have renounced the covenant; but this they absolutely refused. The executions were going on, when the king wrote a letter to the privy council, in which he ordered that such of the prisoners as should simply promise to obey the laws for the future should be set at liberty, and that the incorrigible should be sent to the plantations. This letter was brought to the council by Burnet, but was not immediately delivered by Sharp. It had been customary to put these poor creatures to very severe tortures, to make them confess. By Sharp's delay, one Hugh Maccail had been tortured, who would otherwise have escaped; and so violent were the torments he endured that he expired under them. Yet he seemed to die in an exstacy of joy. His last words were uttered with an accent which struck the by-standers with astonishment. 'Farewell,' said he, 'sun, moon, and stars; farewell world and time; farewell weak frail body; welcome eternity; welcome angels and saints; welcome Saviour of the world; and welcome God the judge of all.'

In 1670 an act against conventicles was passed, seemingly with a design of mitigating the former persecuting laws; though even this was severe enough. By this act, the hearer in a conventicle (that is, in a dissenting meeting, where more than five besides the family were present) was fined 5*s*. for the first offence, and 10*s*. for the second; the preacher £20 for the first offence, and £40 for the second. The person in whose house the conventicle met was fined a like sum with the preacher. One remarkable clause was, that, if any dispute should arise with regard to the interpretation of any part of the act, the judges should always explain the doubt in the sense least favorable to conventicles, it being the intention of parliament entirely to suppress them. As the violent methods used by the king were found ineffectual to obtain the purpose in Scotland, a scheme of comprehension was tried in 1678, by which it was proposed to diminish the authority of the bishops, to abolish their negative voice in the ecclesiastical courts, and to leave them little more than the right of precedency among the presbyters: but this too was rejected by the people, who well knew its tendency. The next scheme was an indulgence; by which the most popular of the expelled preachers, without requiring any terms of submission to the established religion, were settled in vacant churches; and small salaries of about £20 a-year were offered to the rest, till they should be otherwise established: but conventicles multiplied, and the covenanters continually met at them in arms. A renewal of the persecutions now therefore commenced under the administration of the duke of Lauderdale and archbishop Sharp. It was an old law, but seldom put in execution, that a man who was accused of any crime, and did not appear to take his trial, might be intercommuned; that is, he might be publicly outlawed; and whoever afterwards, either on account of business, relation, or charity, had the least intercourse with him, was subjected to the same penalties which the law could inflict on the criminal himself. Great numbers of writs of intercommuning were now issued against the covenanters; by which crimes and punishments were vastly multiplied. Application was made to Charles for some redress of these grievances; but he was too much taken up with his pleasures to take any effectual means of putting a stop to them; nay, even while he retracted them, he was persuaded to avow and praise them in a letter to the privy council. The consequence of all this was, that the covenanters were at last so much enraged against Sharp, whom they considered as an apostate, and experienced to be an unrelenting persecutor, that on the 3d of May, 1679, he was waylaid and murdered. See SHARP. This gave rise to a persecution still more violent, which at last brought on another insurrection. The covenanters finding themselves obliged to meet in large bodies, and bring arms along with them for their own security, set forth a declaration against prelacy, which they published at Rutherglen, a small borough near Glasgow; and burned in the market place several acts of parliament, which had established that mode of church government. For this purpose they chose the 29th of May, the anniversary of the Restoration; having previously extinguished the bon-fires that had been kindled on that occasion. Count Graham, afterwards viscount Dundee, an active and enterprising officer, attacked at this time a conventicle upon London Hill, but was repulsed with the loss of about thirty men. The covenanters, then finding themselves unwarily engaged in rebellion, were obliged to persevere; and pushed on to Glasgow, which, though repulsed at first, they afterwards made themselves masters of. Here they dispossessed the established clergy, and issued proclamations, in which they declared that they fought against the king's supremacy, against popery and prelacy, and a popish successor. Charles, being now alarmed, despatched against the covenanters a small body of English cavalry under the duke of Monmouth. He joined the Scottish guards, and some regiments of militia levied from the well affected counties; and with great celerity marched in quest of the insurgents. They had taken post at Bothwell-bridge between Hamilton and Glasgow; where there was no access but by the bridge; and where a small body was able to defend it against the king's army. The whole army of the covenanters never exceeded 8000 men, and they had in reality no other generals than their clergymen. Monmouth attacked the bridge, and the covenanters maintained it, as long as their ammunition lasted. When they sent for more, they received orders to quit their post and retire; and this imprudent measure occasioned an immediate defeat. Monmouth passed the bridge without opposition, and drew up his forces opposite the enemy. His cannon alone put them to the rout; about 700 were killed in the pursuit, and 1200 taken prisoners, who were treated with great humanity. Such as promised to live peaceably under the government were dismissed; and about 300 who refused this condition were shipped for Barbadoes, but unfortunately perished by the way. Two of their clergymen were hanged. Soon after, an act of indemnity was passed: but Lauderdale took care that it should afford little protection to the unhappy covenanters; for, though orders were given to connive thenceforward at all conventicles, he found means under a variety of pretences to elude the execution of them.

It is now known, that Charles II. had formed a scheme of overturning the established religion, and substituting Popery in its place; as well as of rendering himself absolute. In this, however, he met with violent opposition from his parliaments; and, as the one of 1679 even surpassed their predecessors in this respect, the king dissolved them and called another in 1680. By this step, however, he gained nothing. They voted the legality of petitioning the king; and fell with extreme violence on the abhorrers, who were seized by their order in all parts of England, and committed to close custody; the liberty of the subject, which had been so carefully guarded by their own recent law, was every day violated by their arbitrary and capricious imprisonments. But one Stowel of Exeter put a stop to their proceedings: he refused to obey the serjeant at arms, and said he knew no law by which the

house of commons pretended to commit him. The house, finding it equally dangerous to proceed or recede, now voted that Stowel was indisposed; and a month's time was allowed him for his recovery. The chief point aimed at by this parliament, was to obtain the enactment of the exclusion bill into a law. It passed by a great majority in the commons, but was thrown out by the house of peers; all the bishops except three voting against it. The commons on this, mortified at the rejection of their favorite bill, resolved, That, till the exclusion bill was passed, they could not, consistently with the trust reposed in them, grant the king any manner of supply; and that whoever should hereafter lend, by way of advance, any money upon the branches of the king's revenue, should be responsible to parliament for his conduct. Charles, therefore, finding that there were no hopes of extorting either money or obedience from them, came to a resolution of once more dissolving the parliament. It was for some time a doubt whether the king would ever call another; his necessities, however, surmounted all his fears of their violence; and, in 1681, he summoned a new parliament to meet him at Oxford. In this, as in all former parliaments, the popular party predominated; and they trod exactly in the same paths with their predecessors. The same speaker was chosen, and the exclusion bill urged more fiercely than ever. Ernely, one of the king's ministers, proposed that the duke should be banished 500 miles from England; and that on the king's decease the next heir should be constituted regent with regal power. Yet even this expedient, which left the duke only the bare title of king, could not obtain the attention of the house. Nothing but a total exclusion would satisfy them. Each party had now for some time reviled and ridiculed each other in pamphlets and libels; and this practice at last was attended with an incident that deserves notice. Fitzharris, an Irish papist, employed a Scotchman, named Everhard, to write a libel against the king and the duke of York. Everhard was actually a spy for the contrary party; and, supposing this a trick to entrap him, he discovered the whole to Sir William Waller, a justice of the peace. The libel was replete with the utmost rancour and scurrility; and Waller, having carried the intelligence to the king, seized Fitzharris, with a copy of it in his pocket. Seeing himself in the hands of a party from whom he expected no mercy, the latter now threw the odium of the libel upon the court, who, he said, were desirous to impute it to the exclusioners, to render them hateful to the people. He also enhanced his services to the country party by a new popish plot, in which he charged the duke of York as a principal accomplice. The king imprisoned Fitzharris: the commons avowed his cause. They voted that he should be impeached by themselves, to screen him from the ordinary forms of justice: the lords rejected the impeachment; the commons asserted their right to prosecute it: a commotion was likely to ensue; and the king, to break off the contest, went to the house and dissolved the parliament, with a fixed resolution never to call another.

From this moment the king ruled with despotic power. His temper, which had hitherto been easy and merciful, now became cruel and arbitrary; he entertained spies and informers round the throne, and imprisoned all such as he thought most daring in their designs. Resolving to humble the presbyterians, he divested them of their employments and places; and gave their offices to such as approved the doctrine of non-resistance. The clergy began to testify their zeal and their principles by their writings and sermons; but, though among these the partizans of the king were the most numerous, those of the opposite faction were the most enterprising. The king openly espoused the cause of the former; and, placing himself at the head of a faction, deprived the city of London, which had long headed the popular party, of their charter. Fitzharris was now brought to a trial before a jury, and condemned and executed. The whole gang of spies, witnesses, informers, and suborners, who had long been encouraged and supported by the leading patriots, finding that the king was entirely master, turned short upon their old employers, and offered their evidence against those who first put them in motion. The king's ministers gave them encouragement; and in a short time the same injustice and the same cruelties were practised against presbyterian schemes, that had formerly been practised against Catholic treasons. But the king's chief resentment was levelled against the earl of Shaftesbury. No sums were spared to seek for evidence, or even to suborn witnesses, against this intriguing and formidable peer. A bill of indictment being presented to the grand jury, witnesses were examined, who swore to such incredible circumstances as must in all ordinary cases have invalidated their testimony. Among his papers, indeed, a draught of an association was found, which might have been construed into treason; but it was not in the earl's hand writing, nor could it be proved that he had ever communicated this scheme to any body, or signified his approbation of it. The sheriffs, however, had summoned a jury whose principles coincided with those of the earl; and that probably, more than want of proof, procured his safety. The other corporations of England soon began to fear that they should experience the same treatment as that of London, and were successively induced to surrender their charters to the king. Considerable sums were exacted for restoring these charters; and all the offices of power and profit were left at the disposal of the crown. There was a party, however, in England, that still cherished their former ideas of freedom, and resolved to restore liberty to their country, by dethroning the king who acted in such a despotic manner. The principal conspirators were Monmouth, Shaftesbury, Russel, Essex, Howard, Algernon Sidney, and John Hampden, grandson to the great man of that name. Monmouth engaged in their plans the earl of Macclesfield, lord Brandon, Sir Gilbert Gerard, and other gentlemen in Cheshire. Lord Russel entered into a correspondence with Sir William Courtney, Sir Francis Knowles, and Sir Francis Drake, who promised to raise the west: and Shaftesbury, with one Ferguson, an Independent clergyman,

and a restless plotter, managed the city, upon which the confederates chiefly relied. These schemes had been laid in 1681: but the caution of lord Russel, who induced the duke of Monmouth to put off the enterprise, saved the kingdom from the horrors of a civil war; while Shaftesbury, after some vain efforts to induce the citizens to revolt, retired in disgust to Holland. The remaining formed a council; which corresponded with Argyle and the malcontents in Scotland; but they widely differed in their plans. Monmouth aspired at the crown; Russel and Hampden proposed to exclude the duke of York from the succession, and redress the grievances of the nation; while Sidney and Essex were for restoring the republic. Lord Howard was an abandoned man, who, having no principles, sought to embroil the nation, to gratify his private interests. Besides these, there was a set of subordinate conspirators, who frequently met, and carried on projects quite unknown to Monmouth, and his council. These men undertook the desperate resolution of assassinating the king in his way to Newmarket; Rumbold, one of the party, possessing a farm upon that road, called the Rye-house, whence the conspiracy was called the Rye-house plot. But the house in which the king resided at Newmarket accidentally took fire, and he was obliged to leave that place eight days sooner than he was expected, a circumstance to which he owed his safety. Soon after this the conspiracy was discovered; Russel, Sidney, and Walcot, were tried on the charge of being connected with it, convicted, and executed; Essex cut his own throat; Hampden was fined £40,000, and scarcely one escaped who had been in any manner concerned, except the duke of Monmouth, the most culpable of all. Severe punishments, however, were inflicted on many who treated the duke of York disrespectfully. The famous Titus Oates was fined £100,000 for calling him a popish traitor; and he was sentenced to be imprisoned till he should pay it. A similar sentence was passed upon Dutton Colt. Sir Samuel Barnardiston was fined £10,000 for having in some private letters reflected on the government. At last, to please his subjects by an act of popularity, the king married the lady Anne, his niece, to prince George brother to the king of Denmark. This was the last remarkable transaction of this extraordinary reign. On February 2d, 1685, about 8 A.M., the king was seized with a fit of apoplexy; but, being blooded, he was restored perfectly to his senses; and there were great hopes of his recovery. On the fourth day, however, the physicians despaired of his life, and sent for the queen. He was in his perfect senses when she arrived. She threw herself on her knees, and asked his pardon for all her offences. He replied that she had offended in nothing; but that he had been guilty of offences against her, and asked her pardon. He spoke with great affection to the duke of York, and gave him excellent counsel for his future conduct. He advised him to adhere strictly to the laws, and to support the church of England invariably. The duke seemed anxious to convince him before he died how little he intended to follow his advice. Having removed the bishops and several of the lords who attended, he sent for Huddleston, a Romish priest, and in the presence of the duke, the earl of Bath, and Trevannion a captain in the guards, Huddleston gave the extreme unction to the king, and administered to him the sacrament according to the rites of the church of Rome. All this was accomplished in the space of half an hour. The doors were then thrown open. Six prelates, who had before attended the king, were sent for to give him the sacrament. Kenn, bishop of Bath and Wells, read the visitation for the sick; and, after he said that he repented of his sins, the absolution. The king assisted with seeming devotion at the service; but his mouth being distorted with fits, and his throat contracted, he could not swallow the elements. He professed, however, his satisfaction in the church of England; and expired on the 6th February between eleven and twelve o'clock; having reigned twenty-five years, and lived fifty-five.

The first act of James II.'s reign was to assemble a privy council: where, after some praises bestowed on the memory of his brother, he made professions of his resolution to maintain the established government both in church and state; and, as he had heretofore ventured his life in defence of the nation, he would still go as far as any man in maintaining all its just rights and privileges. This speech was received with great applause, not only by the council, but by the whole nation. Addresses came from all quarters, full of duty, nay of the most servile adulation. The address of the Quakers, however, was remarkable for its good sense and simplicity. 'We are come,' said they, 'to testify our sorrow for the death of our good friend Charles, and our joy for thy being made our governor. We are told that thou art not of the persuasion of the church of England no more than we; wherefore we hope that thou wilt grant us the same liberty which thou allowest thyself. Which doing, we wish thee all manner of happiness.' The king, soon showed, that he either was not sincere in his promises, or that he entertained so lofty an idea of his own regal power, that even his utmost sincerity could tend very little to the security of the people. All the customs, and the greater part of the excise, which had been voted to the late king for his life only, were levied by James without a new act of parliament. He went openly to mass with all the ensigns of his dignity; and even sent one Caryl as his agent to Rome, to make submissions to the pope, and pave the way for the re-admission of England into the bosom of the Catholic church. From the suggestions of these men all his measures were undertaken. One day, when the Spanish ambassador ventured to advise his majesty against putting too much confidence in such kind of people, 'Is it not the custom in Spain,' said James, 'for the king to consult with his confessor?' 'Yes,' answered the ambassador, 'and that is the reason our affairs succeed so ill.' James's first parliament, which was composed mostly of zealous Tories, was strongly inclined to comply with the measures of the crown. They voted unanimously, that they should settle on the present king, during life, all the revenue enjoyed

by the late king. For this favor, James assured them that he would secure them in the full enjoyment of their laws; but, with regard to religion, no answer could be extorted, for that he resolved to alter. In every thing, however, religion excepted, James merited praise. He applied himself to business with unremitting attention. He managed his revenue with the strictest economy. He retrenched superfluous expenses, and showed himself zealous for the glory of the nation. He endeavoured to expel from court the vice which had prevailed so much during the former reign, and to restore decency and morality. Presiding daily at the council, and at the boards of admiralty and treasury, he entered into the whole detail of the concerns of the state. But his bigotry for the Romish religion sullied all his good qualities, and rendered him feared for his violence, where he was not despised for his weakness; and a storm was now seen gathering to disturb his repose. The duke of Monmouth, under the auspices, as it is said, of the prince of Orange, resolved to invade England, from the shores of Holland. He was seconded by the duke of Argyle, who formed the scheme of an insurrection in Scotland; and, while Monmouth attempted a rising in the west, it was resolved that Argyle should also make a descent in the north. The generosity of the prince of Orange, however, did not correspond with the warmth of his professions. The unfortunate duke derived from his own plate and jewels his whole supply for the undertaking; and the enthusiasm of a rich widow supplied Argyle with £10,000. Argyle was the first who landed. He appeared in Scotland at the head of 2500 men, and strove to influence the people by various addresses in his favor. But, a formidable body of the king's forces coming against them, his army fell away; and he himself, after being wounded in attempting to escape, was taken prisoner by a peasant. After suffering many indignities, he was tried and publicly executed at Edinburgh.

By this time Monmouth had landed in Dorsetshire with scarcely 100 followers. His name, however, was so popular, and so great was the hatred of the people to James on account of his religion, that in four days he had assembled a body of above 2000 men. They were indeed all of them the lowest of the people, and his declarations were suited entirely to their prejudices. He called the king the duke of York; and denominated him a traitor, a tyrant, a murderer, and a popish usurper. He imputed to him the fire of London, and even affirmed that he had poisoned the late king. He soon found himself at the head of 6000 men; and was daily obliged to dismiss great numbers for want of arms. The king was not a little alarmed at his invasion. Six regiments of British troops were called over from Holland; and a body of regulars, to the number of 3000, were sent, under the command of the earl of Feversham and Churchill, to check the progress of the rebels. They took post at Sedgemore, a village near Bridgewater, and were joined by considerable numbers of the country militia. Here Monmouth resolved, by a desperate effort, to gain the kingdom or lose his life. He drove the royal infantry from their ground, and was on the point of gaining a complete victory, when the cowardice of Gray, who commanded the horse, brought all to ruin. This nobleman fled at the first onset; and the rebels, being charged in flank, gave way after a contest of three hours. About 300 were killed in the engagement, and 1000 in the pursuit. Monmouth fled about twenty miles from the field of battle, till his horse sunk under him. He then alighted; and, exchanging clothes with a shepherd, fled on foot, attended by a German count who had accompanied him from Holland. Being quite exhausted with hunger and fatigue, they both lay down in a field, and covered themselves with fern. The shepherd being found in Monmouth's clothes by the pursuers, increased the diligence of the search; and by means of bloodhounds he was detected in this miserable situation, with raw peas in his pocket, on which he had lived for some days. He burst into tears when seized by his enemies; and petitioned, with the most abject submission, for his life. On his way to London, he wrote a submissive letter to the king, promising discoveries, should he be admitted into his presence. The curiosity of James being excited by the letter, he sent Sheldon, a gentleman of the bed chamber, to meet Monmouth. In his conversation with Sheldon, he asked who was in chief confidence with the king; and being answered that it was Sunderland, Monmouth knocked his breast in surprise, and said, 'Why then, as I hope for salvation, he promised to meet me.' He desired Sheldon to inform the king, that several of his accomplices in rebellion were in the confidence of his majesty; and he gave him a particular account of the part which the prince of Orange had acted in this whole affair. Sheldon, on his return from the duke of Monmouth, began to give an account to the king of what he had learned from the unhappy prisoner. Sunderland, pretending business, came into the room. Sheldon stopped, and signified his desire to speak in private with the king. James told him that he might say any thing before that lord. Sheldon was in great perplexity; but, being urged, he told all that Monmouth had asserted. Sunderland appeared for some time confused; at length he said, with a laugh, 'If that is all he can discover to save his life, he will derive little good from his information.' Monmouth himself was soon after brought before the king. Sunderland, to save himself, and the other adherents of the prince of Orange, advised the duke, that, as he could assure him of the certainty of a pardon, he ought to deny what he had said in prejudice of his friends, who could serve him on some other more favorable occasion. The credulous duke, swayed by this advice, suppressed what he had said to Sheldon, when he was examined by the king. He mentioned nothing of the concern which the prince of Orange had taken in the invasion; though James was already sufficiently informed of this. D'Avaux, the French minister to the States, had given a circumstantial account of the whole conduct of the prince to Louis XIV., who had ordered it to be privately communicated to the king of England.

The minister who had been sent from Holland, to congratulate James on the suppression of Ar-

gyle's rebellion, was in great perturbation when he heard that the king was resolved to see Monmouth. 'Though he found that he said nothing of his master,' said James, 'he was never quiet till Monmouth was dead.' The unfortunate duke made various attempts to obtain mercy. He wrote to the queen dowager, and to the queen, as well as to the king himself. When admitted to the royal presence, Monmouth begged his life, with a meanness unsuitable to his rank and pretensions. But all his entreaties and submissions were of no avail. James told him that he was much affected with his misfortunes, but that his crime was too dangerous in its example to be left unpunished. In his last moments he behaved with a magnanimity worthy of his former courage. When he came to the scaffold, he behaved with decency and even with dignity. He spoke little; made no confession; nor did he accuse any of his friends. Circumstances are said to have attended his death that created a horror among the spectators. The executioner missed his blow, and struck him slightly on the shoulder. Monmouth raised his head from the block, and looked him full in the face, as if reproaching him for his mistake. He struck him twice again, but with feeble strokes; and then threw the axe from his hands. The sheriff forced him to renew his attempt; and the head of the duke was at last severed from his body. Those concerned in this conspiracy were punished with the utmost severity. Immediately after the battle of Sedgemore, Feversham hanged up above twenty prisoners; and was proceeding in his executions, when the bishop of Bath and Wells informed him, that these unhappy men were now by law entitled to a trial, and that their execution would be deemed a real murder. Nineteen were put to death in the same manner at Bridgewater by colonel Kirk, a man of a savage and bloody disposition. This vile fellow, practised in the arts of slaughter at Tangiers, where he served in garrison, took pleasure in committing instances of wanton barbarity. He ravaged the whole country, without making any distinction between friend and foe; and his regiment, for their peculiar barbarity, went under the ironical title of Kirk's lambs. It does not, however, appear, that these cruelties were committed by the direction, or even with the approbation, of James; any more than the legal slaughters that were committed by judge Jefferies, who was sent down to try the delinquents. The brutality of this man's temper was inflamed by continual intoxication. No fewer than eighty were executed by his orders at Dorsetshire; and on the whole, at Exeter, Taunton, and Wells, 251 are computed to have fallen by the hand of justice, as it was called; nor were women exempted from the general severity, but suffered for harboring their nearest kindred. Jefferies on his return was immediately created a peer, and soon after vested with the dignity of chancellor. In justice to the king, however, it must be owned, that he complains, in his Memoirs, with apparent indignation, of 'the strange havock made by Jefferies and Kirk in the west;' and that he attributed the unpopularity, which afterwards deprived him of the crown, to the violence and barbarity of those pretended friends of his authority. He even ascribes their severities, in some degree, to a formed design of rendering his government odious to his subjects.

James now began in earnest to endeavour to establish popery. He told the house of commons that the militia were found by experience to be of no use; that it was necessary to augment the standing army; and that he had employed many Catholic officers, in whose favor he had thought proper to dispense with the test. He found them useful, he said, and he was determined to keep them employed. These stretches of power naturally led the lords and commons into some degree of opposition: but they soon acquiesced in the king's measures, and the parliament was then dissolved. James's next step was to secure a Catholic interest in the privy council. Accordingly four Catholic lords were admitted, viz. Powis, Arundel, Belasis, and Dover. Sunderland, who saw that the only way to gain preferment was by popery, became a convert. Rochester, the treasurer, was turned out of his office, because he refused to conform. In Ireland, even the duke of Ormond, who had long supported the royal cause, was displaced as being a protestant; and lord Tyrconnel, a furious Roman Catholic, succeeded him. In his zeal for popery, it is said, that James stooped so low as even to attempt the conversion of the bloody colonel Kirk; but the daring soldier told him that he was pre-engaged; for he had promised the king of Morocco, when he was quartered at Tangiers, that, if ever he changed his religion, he would turn Mahommedan. At last the clergy of the church of England began to take the alarm, and commenced an opposition to court measures. The pulpits thundered with their warnings against popery; more formidable, it was urged, from the support granted it by the king. It was in vain that James attempted to impose silence on these topics; instead of avoiding the controversy, the Protestant preachers pursued it with greater warmth. To effect his designs, the king determined to revive the high commission court, which had formerly given the nation so much disgust, and which had been abolished by act of parliament for ever. An ecclesiastical commission was issued, by which seven commissioners were invested with a full and unlimited authority over the whole church of England.—The next step was to allow a liberty of conscience to all sectaries; he being taught to believe that the truth of the Catholic religion would then, upon a fair trial, gain the victory. In such a case, the same power that granted liberty of conscience might restrain it, and the Catholic religion alone be allowed to predominate. He therefore issued a declaration of general indulgence, and asserted that nonconformity to the established religion was no longer penal. But in Scotland he ordered the parliament to grant a toleration only to the Catholics, without interceding in the least for the other dissenters, who were much more numerous. In Ireland the Protestants were totally expelled from all offices of trust and profit, and Catholics put in their places. These measures sufficiently disgusted every part of the

British empire; but, to complete the work, James publicly sent the earl of Castlemain ambassador extraordinary to Rome, in order to express his obedience to the pope, and reconcile his kingdoms to the holy see. This proceeding was too precipitate to be relished even by the pope himself; and the only return he made to this embassy was the sending a nuncio into England. This officer made a public and solemn entry into Windsor; which did not fail to add to the general discontent; and, because the duke of Somerset refused to attend the ceremony, he was dismissed from his employment of one of the lords of the bed-chamber. Soon after the Jesuits were permitted to erect colleges in different parts of the kingdom, and to exercise the Catholic worship publicly. Father Francis, a Benedictine monk, was recommended by the king to the university of Cambridge for the degree of M.A. The university rejected him on account of his religion; and presented a petition to the king, beseeching him to recall his mandate. James disregarded their petition, and denied their deputies a hearing; the vice-chancellor himself was summoned to appear before the high-commission court, and deprived of his office; yet the university persisted, and father Francis was refused. With the university of Oxford he also now embroiled himself. The place of president of Magdalen College being vacant, the king sent a mandate in favor of one Farmer, a new convert, and a man of bad character in other respects. The fellows made very submissive applications for recalling his mandate; but, the election day coming on before they received an answer, they chose Dr. Hough, a man of learning, integrity, and resolution. The king was incensed at their presumption; an inferior ecclesiastical court was sent down, who, finding Farmer a man of scandalous character, issued a mandate for a new election. The man now recommended by the king was Dr. Parker; also a man of loose character, but willing to embrace the Catholic religion. The fellows refused to comply with this injunction; which so irritated the king, that he went down to Oxford in person; ordered them to be brought before him; and reproached them with their insolence and disobedience; commanding them to choose Parker without delay. Another refusal on their part still more exasperated him; and, finding them resolute in the defence of their privileges, he ejected all of them, except two, from their benefices, and Parker was put in possession of the college. The college, upon this, was soon filled with Catholics; and Charnock, one of the two that remained, was made vice-president.

In 1688 a second declaration for liberty of conscience was published, almost in the same terms with the former; but with this injunction, that all divines should read it after service in their churches. The clergy resolved to disobey this order. Lloyd bishop of St. Asaph, Kenn of Bath and Wells, Turner of Ely, Lake of Chichester, White of Peterborough, and Trelawney of Bristol, together with Sancroft the primate, concerted an address, in form of a petition, to the king, which, with the warmest expressions of zeal and submission, stated that they could not read his declaration consistently with their consciences, or the respect they owed the protestant religion. The king received this petition with great marks of surprise and displeasure. He said he did not expect such an address from the church of England, particularly from some amongst them; and persisted in his orders for their obeying his mandate. As the petition was delivered in private, the king summoned the bishops before the council, and there questioned them whether they would acknowledge it. They for some time declined giving an answer; but, being urged, they at last owned it. On their refusal to give bail, an order was immediately drawn up for their commitment to the Tower, and the crown lawyers received directions to prosecute them for a seditious libel. Being conveyed to the Tower by water, the whole city was in commotion in their favor, and the people ran to the river side in multitudes, craving their blessing; calling upon heaven to protect them, &c. The very soldiers, by whom they were guarded, kneeled down before them, and implored their forgiveness.

The 29th of June, 1688, was fixed for the trial of the bishops; and their return to Westminster was still more splendidly attended than their imprisonment. Twenty-nine peers, a great number of gentlemen, and an immense crowd of people, waited upon them to Westminster-hall. The dispute was learnedly managed by the lawyers on both sides. The jury withdrew into a chamber, where they passed the whole night; but next morning they returned in court, and pronounced the bishops not guilty. Westminster-hall instantly rang with loud acclamations, which were communicated to the whole extent of the city. They even reached the camp at Hounslow, where the king was at dinner in lord Feversham's tent. James demanding the cause of those rejoicings, and being informed that it was nothing but the soldiers shouting for the delivery of the bishops; 'Call you that nothing?' cried he, 'but so much the worse for them.' Immediately after this the king dismissed two of the judges, Powel and Holloway, who had appeared to favor the bishops; and issued orders to prosecute all those clergymen who had not read his declaration. It was found that all had refused it except 200. He also sent a mandate to the new fellows whom he had obtruded on Magdalen College, to elect for president, in the room of Parker, lately deceased, one Gifford, a doctor of the Sorbonne, and titular bishop of Madura. As the king found the clergy every where averse to his measures, he tried next what he could do with the army. He thought if one regiment should promise implicit obedience, their example would soon induce others to comply. He therefore ordered one of the regiments to be drawn up in his presence, and desired that such as were against his late declaration of liberty of conscience should lay down their arms. He was surprised to see the whole battalion ground their arms, except two officers and a few Roman Catholic soldiers.—A circumstance occurred about this period, in his family, which would have served, if any thing could at that time, to establish him on the throne. A few

days before the acquittal of the bishops, the queen was brought to bed of a son, who was baptized by the name of James: but so great was the animosity against him, that a story was propagated that the child was supposititious; and so great was the monarch's pride, that he scorned to take any precautions to refute the calumny. Though James's own enthusiasm bordered on madness, some of the most wild of his religious projects seem to have been suggested by others. The earl of Sunderland, whom he chiefly trusted, was a man of abandoned principles, and insatiable avarice. To such a degree was he mercenary, that he became at once the pensioner of the prince of Orange and of the king of France. The former, who had long fixed his eye on the English throne, watched James's motions, and took every advantage of his errors. He had laid his schemes so extensively, that nothing but the birth of a male heir to the crown of England could possibly prevent him from an almost immediate possession of the kingdom. He had the address to render two-thirds of the powers of Europe interested in his success. The treaty of Augsburg, formed to break the power of France, could not accomplish its object without the accession of England. The house of Austria, in both its branches, preferred their political views to their zeal for the Romish faith, and promoted the dethronement of James as the only means to humble Louis XIV. Even the pope himself, Innocent XI., was gained over to the measures of the prince of Orange by other considerations, as well as through his fixed aversion to France. He explained to his holiness, that the Catholic princes were in the wrong to expect any advantage to their faith from James, as his being a declared papist rendered his people averse to all his measures. As for himself, should he have the good fortune to mount the throne of England, he might take any step in favor of the Roman Catholics without jealousy: and he promised to procure a toleration for the papists, should the pope, the emperor, and the king of Spain, favor his attempt. This negociation procured the desired effect. The pope contributed, with the money of the church, it is said, to expel a Roman Catholic prince from his throne.

Though the contest with the bishops had completed the king's unpopularity, the crisis of his ruin was brought on by the birth of the prince of Wales. This circumstance increased the fears of his subjects in proportion as it raised his hopes and security. In the reign of a prince to be educated under the prejudices of such a father, nothing but a continuance of the same unconstitutional measures could be expected. The prince of Orange, seeing the national discontent now raised to the highest pitch, resolved to take advantage of it. He began by giving Dykevelt, his envoy, instructions to apply in his name to the different religious sects. To the church party he sent assurances of favor and regard; and protested, that his education in Holland had no way prejudiced him against episcopacy. To the non-conformists he sent exhortations not to be deceived by the insidious caresses of their known enemy, but to wait for a real and sincere protector, &c. In consequence of these insinuations, the prince soon received invitations from the most considerable persons in the kingdom. Admirals Herbert and Russel assured him in person of their own and the national attachment. Lord Dumblane, son to the earl of Danby, being master of a frigate, made several voyages to Holland, and carried from many of the nobility tenders of duty, and even considerable sums of money to the prince of Orange. Henry Sidney, brother to Algernon, and uncle to the earl of Sunderland, came over to him with assurances of a universal combination against the king. Soon after the bishop of London, the earls of Danby, Nottingham, Devonshire, Dorset, and several other lords, gentlemen, and principal citizens, united in their addresses to him, and intreated his speedy descent. The people, though long divided between whig and tory, now joined against their unhappy sovereign as a common enemy. William therefore determined to accept their invitations; and the more readily, as he perceived the malcontents had conducted themselves with prudence and secrecy. Having the principal servants of James in pay, he was minutely informed of the most secret actions and even designs of that prince. The prince had a fleet ready to sail, and troops provided for action, before the beginning of June, 1688. Louis XIV. was the first who gave James any warning of his danger, and offered to assist him in repelling it. But he declined this friendly offer, lest it should be said that he had entered into a private treaty with that monarch, to the prejudice of the protestant religion. Being also deceived and betrayed by Sunderland, he had the weakness to believe, that the reports of an invasion were invented to frighten him into a strict connexion with France. He gave credit to the repeated assurances of the States, that the armament prepared in their ports was not designed against England. Nay, he even believed the assertion of the prince himself, whose interest it was to deceive. Sunderland descanted against the possibility of an invasion, and turned to ridicule all who believed the report. Having by the prior consent of James taken possession of all the foreign correspondence, he suppressed every species of intelligence that might alarm him. Louis, finding his first offers rejected, next proposed to march down his army to the frontiers of the Dutch provinces, and thus detain their forces at home for their own defence: this proposal, however, met with no better reception than the former. Louis still unwilling to abandon a friend and an ally, whose interest he regarded as closely connected with his own, ventured to remonstrate with the Dutch against the preparations they were making to invade England. But the republic treated this remonstrance as an officious interference, and James himself declined his mediation. The king of England having thus rejected the assistance of his friends, and being left to face the danger alone, was astonished by advice from his minister in Holland, that an invasion was not only projected but avowed. When he first read the letter containing this information, he grew pale, and it dropped from his hand. He saw himself on the brink of destruction, and knew

not to whom to apply for protection. In this emergency Louis wrote, that, to divert the Dutch from the intended invasion of England, he would lay siege to Maestritcht with a French army of 30,000 men. James communicated this intelligence to Sunderland, and he to the prince of Orange. 6000 men were thrown into Maestricht; and the design of Louis, as being impracticable, was laid aside. On this the latter, disgusted with James, turned his arms towards Germany. James had now no resource but in attempting to retreat from his late precipitate measures. He paid court to the Dutch, and offered to enter into any alliance with them for their common security. He replaced in all the counties of England the deputy lieutenants and justices, who had been deprived of their commissions. He restored the charters of such corporations as he had withdrawn; annulled the high commission court; reinstated the expelled president and fellows of Magdalen College; and was even reduced to caress those bishops, whom he had so lately persecuted and insulted. All these concessions, however, were now too late; they were regarded as the effects of fear and not of repentance. Indeed, it is said, he very soon gave proofs of his insincerity: for, hearing that the Dutch fleet was dispersed, he recalled those he had made in favor of Magdalen College; and, to show his attachment to the Romish church, he appointed the pope one of the sponsors at the baptism of the prince of Wales. In the mean time, William set sail from Helvoetsluys with a fleet of nearly 500 vessels, and an army of above 14,000 men. Fortune, however, seemed at first unfavorable to his enterprise. He was driven back by a dreadful storm; but soon refitted his fleet, and passed over again to England. It was given out that this invasion was designed for the coasts of France; and many of the English, who saw the fleet pass along their shores, little suspected the place of its destination. The same wind which brought out the Dutch, detained the English fleet in their harbours, so that the Dutch passed the straits of Dover without molestation; and, after a voyage of two days, landed at Broxholme in Torbay, on the 5th of November, the anniversary of the gun-powder treason. But, though the invitation from the English was very general, the prince for some time had the mortification to find himself joined by few. For ten days he continued in vain expectation of being joined by the malcontents; but at last, when deliberating about reimbarking his forces, he was joined by several persons of consequence; and the whole country soon after flocked to his standard. Among the first who joined the prince was major Burrington, and the gentry of the counties of Devon and Somerset. Sir Edward Seymour made proposals for an association, which was signed by great numbers; and every day produced instances of that universal combination into which the nation had entered against the measures to the king. This was followed by the defection of the army. Lord Colchester, son to the earl of Rivers, first deserted to the prince. Lord Cornbury, son of the earl of Clarendon, carried off the greatest part of three regiments of cavalry at once; and several officers of distinction informed Feversham, their general, that they could not in honor fight against the prince of Orange. Soon after this, the unhappy monarch found himself deserted by his own immediate servants and dependents. Lord Churchill had been raised from the rank of a page, and had been invested with a high command in the army; he had been created a peer, and owed his whole fortune to the king's bounty: yet even he deserted among the rest; and carried with him the duke of Grafton, natural son to the late king, colonel Berkley, and some others. In this universal defection, James, not knowing where to turn, began to think, when it was too late, of requesting assistance from France. He wrote to Leopold emperor of Germany, but in vain; that monarch only returning for answer, that what he had foreseen had happened. James had some dependence on his fleet, but they were entirely disaffected. In a word, his interests were deserted by all, for he had long deserted them himself. He still found his army, however, to amount to 20,000 men; and, had he led them immediately to battle, it is possible they might then have fought in his favor; but James's misfortunes had deprived him of his natural firmness and resolution. In the extremity of his distress, the prince of Denmark, and Anne his favorite daughter, perceiving the desperation of his circumstances, cruelly resolved to take part with the prince of Orange. When the king was informed of this, he was stung with the most bitter anguish. 'God help me,' cried he, 'my own children have forsaken me.' To add to his distress as a parent, he was accused of being accessary to the death of his own child. Her nurse, and her uncle the earl of Clarendon, affirmed that the papists had murdered the princess; and publicly asked the queen's servants whither they had conveyed her. It was, however, soon known that she had fled, under the conduct of the bishop of London, to Northampton. On the 30th James sent three noblemen to treat with the prince of Orange. But though the latter knew very well that the king's commissioners were in his interest, his behaviour showed plainly, that he now thought the time of treating was past. For some time he would not admit them to an audience; and, when he did, would give no satisfactory answer. James now began to be alarmed for his personal safety, and resolved to send the queen and her infant son abroad. On a stormy and rainy day they crossed the river in a boat; and were taken to Gravesend in a coach, under the conduct of the count de Lauzun. A yacht, commanded by captain Gray, which lay there ready for the purpose, soon transported them in safety to Calais. The king was now so dispirited and distracted, that he soon resolved to follow them. He threw the great seal into the Thames; left none with any authority to conduct affairs in his absence; vainly hoping to derive advantage to his affairs from anarchy. On the 10th of December, about twelve o'clock at night, he disguised himself, took a boat at Whitehall, and crossed the river. Sir Edward Hales, with another friend, met him at Vauxhall with horses. He mounted, and, being conducted through by-ways by a guide, passed in the night-time to the Medway, which he

crossed by Ailesford bridge. At Woolpeck he took fresh horses, sent thither before by Sheldon, one of his equerries, who was in the secret of his flight, and arrived at 10 o'clock at Emby ferry near Feversham, where a custom-house hoy, hired by Sir Edward, lay ready to receive them. But the wind blew fresh, and the vessel had no ballast. The master, therefore, easily persuaded the king to permit him to wait for ballast. It being half ebb when they ran on shore, they designed to sail as soon as the vessel should be afloat. But she was now boarded by three fisher boats belonging to Feversham, containing fifty men. They seized the king and his two companions, under pretence of their being papists, that wanted to escape from the kingdom, and returned up Feversham water with the tide: but still the king remained unknown. Sir Edward Hales placed privately fifty guineas in the hands of the captain, as an earnest of more, should he permit them to escape. He promised; but was so far from keeping his word, that he took what money they had, under pretence of securing it from the seamen, and then left them to their fate. The unfortunate fugitives were at length taken in a coach to Feversham, amidst the insults, clamors, and shouts of the sailors. When the king was brought to the inn, a seaman who had served under him knew him, and melted into tears. The other fishermen who had treated him with indignity also now relented; and, as he gradually became known, the inhabitants of the whole village gathered round him, whilst those of higher rank fled from his presence.

On the flight of the king, the confusion he had anticipated ensued in London, and the prince of Orange exercised in his own person all the functions of royalty. He issued a declaration to the disbanded army to re-assemble themselves. He ordered the secretary at war to bring him a list of the king's troops, and commanded lord Churchill to collect the horse guards. The duke of Grafton he sent to take possession, in his name, of Tilbury Fort. The assembly of peers adjourned to the council chamber at Whitehall; and, to give the appearance of legality to their meeting, chose the marquis of Halifax for their president. While this assembly was sitting, on the 13th December, a poor countryman, who had been engaged by James, brought an open letter from that unfortunate prince to London. It had no superscription, and it was addressed to no one. It described, in one sentence only, his deplorable condition in the hands of a desperate rabble. This messenger of their fallen sovereign had long waited at the council door, without being able to attract the notice of any who passed. The earl of Mulgrave at length, apprised of his business, had the courage to introduce him to the council. He delivered his open letter, and told the situation of the king with tears. The assembly were so much moved, that they sent the earl of Feversham with 200 of the guards to protect him. His instructions were to rescue him from danger, and afterwards to attend him to the sea coast, should he choose to retire abroad. He decided, however, to return to London; when the prince of Orange sent a messenger to him, desiring him to advance no nearer the capital than Rochester. The message missed James by the way, and the king sent Feversham with a letter to the prince, requesting his presence in London to settle the nation. He himself proceeded to that place, and arrived on the 16th of December. Doubting the fidelity of the troops who were quartered at Westminster, he chose to pass through the city to Whitehall. Never prince returning with victory to his capital was received with louder acclamations. The streets were covered with bonfires. The bells were rung, and the air was rent with repeated shouts of gladness. All orders of men crowded to his coach; and, when he arrived at Whitehall, his apartments were crowded with people who came to express their joy at his return. The prince of Orange received the news of that event with a haughty air. His aim from the beginning was to induce him to relinquish the throne. The Dutch guards were ordered to take possession of Whitehall, and to displace the English; and the king was soon after desired, by a message which he received in bed at midnight, to leave his palace next morning, and depart for Ham, a seat of the duchess of Lauderdale's. He desired, however, permission to retire to Rochester, a town near the sea coast, and opposite to France. This was readily granted, it being now perceived that the harsh measures of the prince had taken effect, and that the king meditated an escape to France. King James, surrounded by the Dutch guards, arrived at Rochester on the 19th of December. This restraint put upon his person, and the manner in which he had been forced from London, raised the indignation of some, and the compassion of many. The English army, both officers and soldiers, began to murmur; and, had it not been for the timidity of James himself, the nation would, perhaps, have returned to their allegiance. He remained three nights at Rochester in the midst of a few faithful friends. The earls of Arran, Dumbarton, Ailesbury, Litchfield, and Middleton were there; with the gallant lord Dundee, and other officers of merit. They argued against his flight with united efforts. Several bishops, some peers, and many officers, entreated his stay in some part of England. Message followed message from London. They represented that the opinions of men began to change, and that events would daily arise in favor of his authority. Dundee added his native ardor to his advice. 'The question, Sir,' said he, 'is Whether you shall stay in England or fly to France? Whether you shall trust the returning zeal of your native subjects, or rely on a foreign power? Here you ought to stand. Keep possession of a part, and the whole will submit by degrees. Resume the spirit of a king. Summon your subjects to their allegiance. Your army, though disbanded, is not dispersed. Give me your commission, and I will carry your standard through England, and drive before you the Dutch and their prince.' The king replied 'that he believed it might be done: but that it would raise a civil war, and he would not do so much mischief to a nation, that would so soon come to their senses again.' Middleton urged

his stay, though in the remotest part of the kingdom. 'Your majesty,' said he, 'may throw things into confusion by your departure; but it will be but the anarchy of a month: a new government will soon be settled, and you and your family will be ruined.' These spirited remonstrances had no effect upon James. He resolved to quit the kingdom; and, having communicated his design to a few of his friends, he passed, at midnight, through the back door of the house where he lodged, and with his son the duke of Berwick, and Biddulph one of his servants, went in a boat to a smack which lay waiting for him without the fort of Sheerness. A hard gale compelled them to bear up toward Leigh, and to anchor on the Essex side of the coast, under the lee of the land. When the gale slackened, they passed through seven ships at anchor in the Downs; but, unable to fetch Calais, she bore away for Boulogne, and anchored before Ambleteuse. The king landed at three o'clock in the morning of Tuesday, December 25th; and, taking post, soon joined his queen at St. Germains.

James having thus abandoned his dominions, the prince of Orange, by the advice of the house of lords, the only remaining branch of the legislature, was desired to summon a parliament; but, unwilling to act upon so imperfect an authority, he convened all the members who had sat in the house of commons during any parliament of Charles II. To these were added the mayor, aldermen, and fifty of the common council of London. The prince, thus supported, wrote circular letters to the counties and corporations of England to call a new parliament. The house being met, which was mostly composed of the Whig party, thanks were given to the prince of Orange for the deliverance he had brought them; after which they proceeded to settle the kingdom. A vote soon passed both houses, that king James II., having endeavoured to subvert the constitution of the kingdom, by breaking the original contract between the king and his people, and having, by the advice of Jesuits, and other wicked persons, violated the fundamental laws, and withdrawn himself out of the kingdom, had abdicated the government, and that the throne was thereby vacant. The king being thus deposed, William, after some discussion, was appointed his successor. Proposals were made for electing a regent. Others were for investing the princess of Orange with regal power, and declaring the young prince supposititious. To each of these propositions William, however, opposed a decided negative. 'He had been called over,' he said, 'to defend the liberties of the British nation, and had happily effected his purpose; he had heard of several schemes proposed for the establishment of their government: and, if they chose a regent, he thought it incumbent upon him to inform them, that he would not be that regent; also that he would not accept of the crown under the princess his wife, though he was convinced of her merits; that therefore, if either of these schemes was adopted, he could give them no assistance in the settlement of the nation; but would return home to his own country, satisfied with his aims to secure the freedom of theirs.' Upon this, after a long debate of both houses, a new sovereign was preferred to a regent, by a majority of two voices. It was agreed, that the prince and princess of Orange should reign jointly as king and queen of England; while the administration of government should be placed in the hands of the prince only. The marquis of Halifax, as speaker of the house of lords, made a solemn tender of the crown to their highnesses, in the name of the peers and commons of England. The prince accepted the offer; and that very day, February 13th, 1689, William and Mary were proclaimed king and queen of England.

4. *The history of Great Britain from the Revolution to the accession of the house of Brunswick.*—Though Mary had a share of the royal title, and her name and effigy were impressed on the coin, she never possessed either the authority of a queen, or the influence of a wife. Her easy temper had long been subdued by the stern severity of a husband who had very few amiable qualities. Being brought up almost under his tuition, and confined in every thing to his orders, she was accustomed to adopt implicitly his political maxims and even his thoughts: she therefore soon ceased to be an object of consequence in the eyes of the nation. William III. began his reign with issuing a proclamation for continuing all Protestants that had been in place on the first of the preceding December. On the 17th he formed his privy council, and, to gratify as many as possible of his friends, the several public boards, and even the chancery, were put into commission. The earl of Nottingham who had violently opposed the elevation of William, and the earl of Shrewsbury, who had adhered to his views, were made secretaries of state. The marquis of Halifax, and the earl of Danby, though rivals in policy, were admitted into the cabinet; the first as lord privy seal, the second as president of the council. His Dutch friends, in the mean time, were not forgotten by the king. Bentinck, his favorite, was made a privy counsellor, groom of the stole, and privy purse. Auverquerque was appointed master of the horse; Zuylstein received the office of master of the robes; and Schomberg was placed at the head of the ordnance. Though these instances of gratitude were, no doubt, necessary to William, the nation was displeased at them. The king, who had been bred a Calvinist, was also very strongly inclined to favor that sect. Finding, therefore, the clergy of the church of England little inclined to take the oaths to the new government, he began openly to indulge his prejudices in favor of the dissenters. Having come to the house of lords, to pass some bills, on the 16th March, he made a speech, urging the necessity of admitting all Protestants indiscriminately into the public service. He informed them, that he was employed in filling up the vacancies in offices of trust; and he hoped that they were sensible of the necessity of a law, to settle the oaths to be taken by such persons as should be admitted into place. As he doubted not, he said, that they would sufficiently provide against Papists, so he hoped that they would leave room for the admission of all Protestants that were able

and willing to serve. This equitable proposal was rejected with vehemence. The adherents of the church complained that the ruin which they feared from the Papists, in the preceding reign, was now to be dreaded from the Protestant dissenters. They affirmed that, if the established religion was to be destroyed, it mattered little by whose hands it must fall. A bill, brought in by the ministry for abrogating the former oaths of supremacy and allegiance, was therefore rejected. An attempt to dispense with the sacramental test was also made without success. The court party proposed that any man should be sufficiently qualified for any office, by producing a certificate of his having received the sacrament in any Protestant congregation. But this proposition was rejected in the house of lords by a great majority. William repeated his attempts of a comprehension; but he was ultimately unsuccessful, and, in the coronation oath, the church party inserted a clause binding the king to maintain the Protestant religion 'as established by law.' To this clause William is said to have discovered an apparent unwillingness to swear, and his government was, for some time, but in a very tottering condition. Either through want of health, or inclination, the king interfered but little in the affairs of the nation. Ireland was strangely neglected. Halifax and Danby, who had, in a manner, raised the king to the throne, caballed with his enemies. They perceived that the people were beginning to be discontented; and that every thing seemed to indicate another change. Halifax himself declared, that, were James to conform, he could not be kept four months from re-ascending his throne. From these apparent discontents of the nation, the friends and emissaries of James assumed more boldness. They tampered with the servants of the crown, and inflamed the army. The former they alarmed with the prospect of a sudden change; the latter they roused into indignation by the manifest preference given by William to his countrymen the Dutch.

Though the kingdom of Scotland did not at first recognise the authority of William, yet the party of James never attained sufficient strength to be of any effectual service to him in that kingdom. Thirty Scotch peers, and nearly eighty gentlemen, then in London, had waited, in the beginning of January, on the prince of Orange. Without any authority from the regency still subsisting in Edinburgh, they formed themselves into a kind of convention, and the prince of Orange, in a formal manner, asked their advice. He withdrew, and they adjourned to the council chamber at Whitehall. The duke of Hamilton, being chosen president, explained the distracted state of Scotland. He represented that disorders, anarchy, and confusion, prevailed; and he urged the necessity of placing power somewhere, till a convention of the states should be called to form a lasting and solid settlement. When the heads of their address to the prince of Orange were settled, and ordered to be ingrossed, the earl of Arran unexpectedly arose, and proposed to invite back the king. The meeting, however, adhered to the prince of Orange; and waited on him in a body, requesting him to take the administration into his hands. He thanked them for the trust they had reposed in him, and a convention was ordered to meet at Edinburgh on the 14th of March: in which it was provided that no exception or limitation whatever should be made as to religion, except that the members should be Protestants. A secession, however, was made from this convention, in favor of James. The archbishop of Glasgow, the earl of Balcarras, and the viscount Dundee, were authorised by an instrument signed by the late king, at that time in Ireland, to call a convention of the states at Stirling. But this measure was defeated, first by the wavering disposition of the marquis of Athol, and afterwards by the delay and folly of the rest of the party. At last Dundee, being alarmed by information of a design formed by the convenanters to assassinate him, left Edinburgh at the head of fifty horse. When he passed under the walls of the castle, the duke of Gordon, who held that place, and favored the cause of James, called him to a conference. He scrambled up the precipice, and informed the duke of his designs in favor of the late king. He conjured him to hold out the castle, under a certainty of being relieved. The novelty of the sight collected multitudes of spectators. The convention was alarmed. The president ordered the doors to be locked, and the keys to be laid upon the table. The drums were beat to alarm the town. A number of ill armed retainers were gathered together in the street by the earl of Leven. Dundee, in the mean time, rode off with his party; but, when they found themselves secure, the duke of Hamilton adjourned the convention; which relieved the adherents of James from apprehensions for their own safety. Fifty members retired from Edinburgh; and that circumstance procured a unanimity in all the succeeding resolutions of the convention. Soon after this it was determined, in a committee, that James had 'forefaulted' his right to the throne, which was thereby become vacant. This resolution was approved by the convention, and another was drawn up for raising William and Mary to the vacant throne; in consequence of which they were proclaimed at Edinburgh on the 11th of April, 1689.

The castle of Edinburgh was still retained for king James, by the duke of Gordon; but despairing of any relief, and pressed by a siege, he surrendered it on the 13th of June; and the adherents of James, greatly disconcerted at this misfortune, now turned their eyes to the viscount Dundee. That nobleman, having been in vain urged by the convention to return, they had declared a fugitive, an out-law, and a rebel; and general Mackay had been sent to Scotland by William, with four regiments of foot, and one of dragoons, to support his interests. Dundee, being apprised of his design to surprise him, retired to the Grampian Mountains with a few horse: thence he marched to Gordon Castle, where he was joined by the earl of Dunfermline with fifty gentlemen. He then passed through the county of Murray to Inverness. He now (8th May) wrote letters, from Badenoch, to the chiefs of all the clans, appointing them to meet at a general rendezvous in Lochaber, on the 18th of the same month. In the mean time, passing

suddenly through Athol, he surprised the town of Perth, and, in hopes of gaining to his party the two troops of Scotch dragoons who lay at Dundee, he marched suddenly to that place: but the fidelity of captain Balfour, who commanded them, disappointed his views. Having raised the land-tax as he passed, Dundee returned through Athol and Rannoch to hold the diet of rendezvous at Lochaber. Here he was reinforced by several Highland chieftains, so that his army amounted to 1500 men. With this force he pursued Mackay for four days. Soon after, however, Dundee found himself surrounded with many difficulties. The officers of the Scotch dragoons, who held a secret correspondence with him, wrote him false intelligence, as an excuse for their own fears; and the natives of the low country, who served in his army, quitted him without leave. At last, he himself fell sick, while Mackay hovered on his rear. A slight skirmish happened, in which the Highlanders prevailed; but they lost their baggage during the action. Dundee at length arrived at Ruthven; but Mackay, being reinforced with a body of 1200 men, advanced against him, and other regiments had arrived at Perth and Dumblain. The Highlanders now deserted every night by hundreds; their gallant leader himself was forced to retire to Lochaber, where only 200 of his whole force remained with him; and, to complete his misfortunes, he received at the same time news of the surrender of the castle of Edinburgh.

On the 23rd of June letters arrived from king James, with a promise of immediate succours from Ireland; upon which Dundee ordered the neighbouring clans to assemble round his standard. But still he had scarcely any thing but the mere bodies of his men with which he could prosecute the war. The Highlanders were armed only with their own weapons, and he had not more than forty pounds of powder in his whole army. All difficulties, however, were surmounted by the active spirit of the general, for whom the army entertained an enthusiastic zeal. On the 17th July he met the king's forces under general Mackay, near the pass of Killicranky. An engagement ensued, in which the Highlanders were victorious: 2000 of Mackay's men were lost either in the field or in the pursuit; but the victory cost the Highlanders dear, for their brave general was mortally wounded. He survived the battle however, and wrote an account of the victory to king James: he even imagined his wound was not mortal; but he died the next morning at Blair. With him ended all the hopes of James in Scotland. Colonel Cannon, who succeeded Dundee in the command, possessed neither his popularity nor his abilities. After some insignificant actions, in which the valor of the soldiers was more conspicuous than the conduct of their leader, the Highlanders deserted in disgust; and the war soon after ended favorably for William, without any repulse given to his enemies.

During the troubles, which had terminated in placing William on the throne of England, the two parties in Ireland were kept in a kind of tranquillity by their mutual fears. The Protestants were terrified at the prospect of another massacre; and the Papists expected every day to be invaded by the joint forces of the English and Dutch. Their terrors, however, were ill founded; for though Tyrconnel sent several messages to the prince, that he was ready to deliver up the kingdom to any force that might make a surrender decent, his offers were always rejected. William was persuaded by the marquis of Halifax, that, should Ireland yield, no pretence could remain for keeping an army in pay; that then, having no force to compel allegiance, he might as easily be turned out as he had been brought into the country; that the English nation could never remain long in a state of good humor; and that he might perceive they already began to be discontented. These insidious arguments induced William to neglect Ireland until Tyrconnel affected to adhere to James. The whole military force of the kingdom at that time amounted only to 4000 men, and of these only 600 were in Dublin. But an half-armed rabble, rather than an army, was now suddenly raised in various parts of the kingdom. Having no pay from the king, they regarded no discipline, and subsisted by depredation. The Protestants in the north armed themselves in their own defence; and the city of Londonderry, relying on its situation, and a slight wall, shut its gates against the newly raised army. Protestant parties in the mean time rose every where, declaring their resolution to unite in self-defence, to preserve the Protestant religion, to continue their dependence on England, and to promote the meeting of a free parliament. To preserve appearances, William sent general Hamilton, an Irishman and a Roman Catholic, to treat with Tyrconnel; but, instead of persuading that lord to yield to William, this messenger advised him to adhere to James. In the mean time James himself assured the lord deputy that he was ready to sail from Brest with a powerful armament; and Hamilton, assuming spirit from the hopes of this aid, marched against the northern insurgents. They were routed with considerable slaughter at Drumore; and Hilsborough, where they had fixed their head quarters, was taken without resistance: the city of Londonderry, however, resolved to hold out to the last extremity. On the 7th of March, 1689, James embarked at Brest. The expedition consisted of fourteen ships of war, six frigates, and three fire-ships: 1200 of his native subjects in the pay of France, and 100 French officers. He landed at Kinsale without opposition on the 12th of the month, and was received with the utmost demonstrations of joy. His first care was to secure, in the fort of Kinsale, the money, arms, and ammunition, which he brought from France; and put the town in some posture of defence: he then advanced to Cork. Tyrconnel arrived at this place soon after, and brought intelligence of the route at Drumore. The king was so much pleased with his attachment and services, that he created him a duke; after which he himself advanced towards Dublin. The condition of the multitude, who poured round him under the name of an army, was not calculated however to raise his hopes of success. Most of them were only provided with clubs; some had sticks tipt

with iron; and, even of those who were best armed, scarcely two in 100 had muskets fit for service. Their very numbers distressed their sovereign, and ruined the country. James, in fact, resolved to disband the greatest part of them. He reserved only fourteen regiments of horse and dragoons, and thirty-five regiments of foot; the rest he ordered to their respective homes. Being received at Dublin, with an appearance of universal joy, James proceeded immediately to business. He ordered, by proclamation, all Protestants who had abandoned the kingdom to return; and, in a second proclamation, commanded all Papists, except those in his army, to lay up their arms, and put an end to the robberies and depredations which they had committed. He raised the value of the currency by a proclamation; and summoned a parliament to meet on the 7th of May. The Protestant clergy represented their grievances in an address; and the university of Dublin appeared with complaints and congratulations. He assured the first of his absolute protection, and a full redress; and he promised the latter not only to defend, but even to enlarge their privileges. On the 8th of April James left Dublin, resolved to lead his army against the insurgents in person. They returned before him, and the king laid siege to Londonderry. The besieged made such a vigorous resistance as has made the place ever since remarkable (see LONDONDERRY); but, being reduced to the last extremity, they would have been obliged to surrender, had they not been relieved, on the 28th of July, by seven ships laden with provisions: on which the siege was immediately raised.

The distressed situation of James, and his absolute dependence upon France, now drove him into the wildest measures. He resolved to coin pieces of copper, which should be received for silver, and the people received this fictitious coin in hopes of being repaid in a more favorable state of affairs. A tax of £20,000 a month was granted for thirteen months by the parliament; and in the mean time the king endeavoured to support the former revenue. He opened a trade with France to supply the want of commerce with England. But the French, knowing their own importance, and the necessity of the unfortunate monarch's affairs, claimed and obtained advantages in traffic which offended his subjects. To add to the distress of James, Ireland was now invaded by 10,000 men under the command of the duke of Schomberg. They appeared on the 12th of August, 1689, in ninety transports, on the coast of Donaghadee. Next day Schomberg landed without opposition his army, horses, and train of artillery. Having marched to Belfast, on the 15th, he continued in that place four days to refresh his troops. He then invested Carrickfergus, and threw into it 1000 bombs, which laid the houses in ashes. The garrison, having spent their powder to the last barrel, marched out with all the honors of war. But Schomberg's soldiers broke the capitulation. They disarmed and stripped the inhabitants, without regard to sex or quality; even women, stark naked, were publicly whipped between the lines; and all this under pretence of cruelties of the same kind having been committed by the Papists. Though Schomberg was an experienced general, who had passed a life of eighty years almost continually in the field, he found himself at a loss how to carry on the war in Ireland. He did not consider the dangers that threatened the health of his troops by confining them too long in one place; and he kept them in a low moist camp near Dundalk, almost without firing of any kind; so that the men fell into fevers and fluxes, and died in great numbers. The enemy were not less afflicted with similar disorders. Both camps remained for some time in sight of each other; and at last, the rainy season approaching, both armies quitted their camps at the same time, and retired into winter quarters. The bad success of the campaign, and the miserable state of the Protestants in Ireland, at length induced William to attempt their relief in person. Accordingly he left London on the 4th of June 1690, and arrived at Carrickfergus on the 14th of that month. Thence he passed to Lisburn, the head quarters of the duke of Schomberg, and reviewed his army at Lough-Britland, consisting of 36,000 men, English, Dutch, German, Danes, and French. Being supplied with every necessary, and in high health and spirits, they seemed absolutely certain of victory. The Irish army, having abandoned Ardee at their approach, fell back to the south of the Boyne. On the bank of that river they were joined by James, who had marched from Dublin at the head of his French auxiliaries. The banks of the Boyne were steep; the south side hilly, and fortified with ditches. The river itself was deep, and it rose very high with the tide. These advantages induced James, contrary to the opinion of his officers, to keep possession of this post. His army was inferior to his opponent's in numbers, and discipline; but flight, he thought, would dispirit his troops, and tarnish his own reputation; he therefore resolved to put the fate of Ireland to the issue; and the celebrated battle of the BOYNE (see that article) was fought on the 30th of June. While his troops were yet fighting, he quitted his station; and, leaving orders to guard the pass at Duleek, made the best of his way to Dublin. He advised the magistrates of that city to make the best terms they could with the victors; and he himself set out for Waterford, where he immediately embarked for France. When he first deserted his troops at the Boyne, O'Regan, an old Irish captain, was heard to say, 'That, if the English would exchange generals, the conquered army would fight them over again.' The victory at the Boyne was by no means decisive, however, and the friends of James resolved to continue their opposition to William. Sarsfield, a popular and experienced general, put himself at the head of the army that had been routed at the Boyne, and went farther into the country to defend the banks of the Shannon. James appointed at this time a French officer, M. St. Ruth, to a superior command over Sarsfield, which gave the Irish universal discontent. On the other hand, general Ginkle, who had been appointed to command the English army in the absence of William, advanced towards the Shannon to meet the

enemy. The only place where it was fordable was at Athlone, a strong walled town built on both sides of the river, and in the hands of James's friends. The English soon made themselves masters of one side of the river: but the opposite bank, being vigorously defended, was long thought impregnable. At length it was resolved in a council of war, that a body of troops should ford the stream in the face of the enemy: who were driven from their works. St. Ruth marched his army to their relief, but he came too late; and his own guns were turned against him: upon which he instantly marched to Aughrim, at ten miles distance, where he determined to wait the English army. Ginkle did not decline the combat, though he had only 18,000 men, while the Irish were above 25,000 strong. A desperate engagement ensued; but at last, St. Ruth being killed, his troops gave way on all sides, and retreated to Limerick, where they made a brave and final stand, after having lost nearly 5000 of their best men.

The siege of Limerick commenced August 25th, 1691; and six weeks were spent before the place without any decisive effect. The garrison was well supplied with provisions, and provided with all the means of defence. The winter approaching, Ginkle had orders to finish the war upon any terms: he therefore offered such conditions, as the Irish, had they been victors, could scarcely have refused with prudence. He agreed, that all in arms should receive their pardon: that their estates should be restored, their attainders annulled, and their outlawries reversed: that none should be liable for debts incurred through deeds done in the course of hostilities: that all Roman Catholics should enjoy the same toleration with regard to their religion, as in the reign of Charles II.; that no oaths but that of allegiance should be required of high or low: and that should the troops, or any number of them, choose to retire into any foreign service, they should be conveyed to the continent at the expense of king William. The lords justices had arrived from Dublin on the 1st of October. They signed the articles together with Ginkle; and thus the Irish Papists put a happy period to a war which threatened their party with absolute ruin. In consequence of this, about 14,000 of those who had fought for king James went over to France, having transports provided by government for conveying them thither. When they arrived, James thanked them for their loyalty, and told them that they should still fight for their old master; and that he had obtained an order from the king of France for their being new clothed, and put into quarters of refreshment. In this manner all James's expectations from Ireland were entirely frustrated, and the kingdom submitted quietly to the English government.

In the beginning of 1692 an action of unexampled barbarity disgraced the government of William in Scotland. In consequence of a pacification with the Highlanders, in the preceding August, a proclamation of indemnity had been issued to such insurgents as should take the oaths to the king and queen, on or before the last day of December. The chiefs of the few tribes who had been in arms for James complied soon after with the proclamation: but Macdonald of Glenco failed in submitting within the limited time; more, however, from accident than design. In the end of December he came to colonel Hill, who commanded the garrison in Fort William, to take the oaths of allegiance to the government. Hill having furnished Macdonald with a letter to Sir Colin Campbell, sheriff of the county of Argyle, directed him to repair immediately to Inverary, to make his submission in a legal manner. The way to Inverary lay through almost impassable mountains: the season was extremely rigorous, and the whole country covered with a deep snow. So eager, however, was Macdonald to take the oaths, before the limited time should expire, that, though the road lay within half a mile of his own house, he would not stop to visit his family. After various obstructions he arrived at Inverary. The time was elapsed, and the sheriff hesitated to receive his submission; until Macdonald prevailed upon him by his importunities, and even tears. But Sir John Dalrymple, afterwards earl of Stair, king William's secretary of State for Scotland, meanly took advantage of Macdonald's neglecting to take the oaths within the time prescribed; and procured from the king a warrant of military execution against him and his whole tribe. As a mark of his own eagerness, or to save Dalrymple, William signed the warrant, both above and below, with his own hand. The secretary, in letters expressive of a brutal ferocity of mind, urged the officers who commanded in the Highlands to execute their orders with the utmost rigor. Campbell of Glenlyon, a captain in Argyle's regiment, and two subalterns, were ordered with 120 men to repair to Glenco on the 1st of February. Campbell, being uncle to young Macdonald's wife, was received by the father with great friendship and hospitality. The men were treated in the houses of his tenants with free quarters and kind entertainment. Till the 13th of the month, the troops lived in good humor and familiarity with the people. The officers on the very night of the massacre passed the evening, and played at cards in Macdonald's house. In the night, however, lieutenant Lindsay, with a party of soldiers, called in a friendly manner at the door. He was instantly admitted: when Macdonald, as he was rising, was shot dead through his back. His wife had already put on her clothes; but was stripped naked by the soldiers, who tore the rings off her fingers with their teeth. The slaughter was now general. To prevent the pity of the soldiers to their hosts, their quarters had been changed the night before. Neither age nor infirmity was spared. Some women, in defending their children, were killed; boys, imploring mercy, were shot by officers, on whose knees they hung. In one place nine persons, as they sat enjoying themselves at table, were shot dead by the soldiers. At Inveriggen, in Campbell's own quarters, nine men were first bound by the soldiers, and then shot at intervals, one by one. Nearly forty persons were massacred by the troops. Several who fled to the mountains perished by famine and the inclemency of the season: those who escaped owed their lives to a tempestuous night. Lieutenant colonel

Hamilton, who had the charge of the execution from Dalrymple, was on his march with 400 men, to guard all the passes from the valley of Glenco; but was obliged to stop by the severity of the weather, which proved the safety of the rest of the tribe. He entered the valley next day; laid the houses in ashes; and carried away all the cattle and spoil, which were divided among the officers and soldiers.

It has been supposed, that it was partly to efface the remembrance of this massacre, and the superficial enquiry which afterwards took place respecting it, above-mentioned, that the king caused his commissioner to declare in the Scots parliament, 'That if the members found it would tend to the advancement of trade, that an act should be passed for the encouragement of such as should acquire and establish a plantation in Africa, America, or any other part of the world where plantations might be lawfully acquired, his majesty was willing to declare he would grant to the subjects of this kingdom, in favor of these plantations, such rights and privileges as he granted, in like cases, to the subjects of his other dominions.' Relying on this, and other flattering promises, the nobility and gentry of Scotland advanced £400,000 towards the establishment of a company for carrying on an East and West India trade; and 1200 veterans, who had served in king William's wars, were sent to effect a settlement on the peninsula of DARIEN. See that article. But the new settlers were soon abandoned to their fate, though many of them had been covered with wounds in fighting his battles. The disappointment of the people, upon receiving authentic accounts of the ruin of their colony, was great and universal. The whole nation seemed to join in the clamor that was raised against their new sovereign.

The reduction of Ireland, and the dispersion of the Highland chieftains who favored his cause, did not entirely exterminate the hopes of James. His chief expectations were now founded on a conspiracy among his English adherents, and in the succours promised by the French king. A plot was first formed in Scotland by Sir James Montgomery; a person, who, from being an adherent to William, now turned against him: but the project was ill contrived, and altogether an abortion. To this another succeeded, which seemed to threaten more serious consequences, as it was managed by the Whig party, who were the most formidable in the state. A number of these joined themselves to the Tories, and both made advances to the adherents of the late king. They assembled together: and the result of their deliberations was, that the restoration of James was to be effected entirely by foreign forces; that he should sail for Scotland, and be there joined by 5000 Swedes; who, because they were of the protestant religion, would, it was thought, remove a part of the odium which attended an invasion by foreigners; it was concerted that assistance should at the same time be sent from France, and that full liberty of conscience should be proclaimed throughout the kingdom. To save time, it was resolved to send over to France two trusty persons to consult with the banished monarch; and lord Preston and Mr. Ashton were appointed for this embassy. Both of them, however, were seized when they least expected it, by order of lord Caermarthen. Both were condemned: Ashton being executed without making any confession; but lord Preston had not the same resolution. Upon an offer of pardon, he discovered a great number of his associates; among whom were the duke of Ormond, lord Dartmouth, and lord Clarendon. The French at last became sensible of their bad policy in not having better supported the cause of James, and therefore resolved to make a descent upon England in his favor. In pursuance of this scheme, the French king supplied James with an army consisting of a body of French troops, some English and Scots refugees, and the Irish regiments which had been transported into France from Limerick. This army was assembled between Cherbourg and La Hogue, and commanded by king James in person. More than 300 transports were provided for landing it on the opposite coast; and Tourville, the French admiral, at the head of sixty-three ships of the line, was appointed to favor the attempt. His orders were, at all events, to attack the enemy, in case they should oppose him; so that every thing promised the banished king a change of fortune. These preparations were soon known at the English court, and every precaution taken for a vigorous opposition. The machinations of the banished king's adherents were discovered to the English ministry. The duke of Marlborough, lord Godolphin, and even the princess Anne herself, were violently suspected of disaffection; preparations, however, were made with great tranquillity and resolution, to resist the growing storm. Admiral Russel was ordered to put to sea with all possible expedition; and he soon appeared with ninety-nine ships of the line, besides frigates and fire-ships. At the head of this formidable fleet, he set sail for the coast of France; and near La Hogue discovered the enemy, who prepared to give him battle. The engagement began between the two admirals, with great fury, on Thursday morning, May 19th, 1692; and the rest of the fleet soon followed their example. The battle lasted for ten hours; but at last victory declared on the side of numbers; the French fled for Conquet road, having lost four ships in the first day's action. The pursuit continued for two days; three French ships of the line were destroyed the next day; and eighteen more, which had taken refuge in the bay of La Hogue, were burnt by Sir George Rooke. Thus were all the French preparations frustrated; and so decisive was the blow, that from this time France long relinquished all claims to the sovereignty of the ocean.

This decisive victory over the French fleet also put an end to the hopes of James. No further attempts were made in his favor, except some plots to assassinate king William, which ended only in the destruction of those who formed them. But it was never fairly proved that James countenanced these plots. In 1697 the abbé de Polignac, ambassador from France

in Poland, informed his court, that thoughts were entertained of electing the late king of Great Britain, king of Poland. Louis XIV. eagerly recommended this honor to James, but he himself steadily refused it. He told them, that 'he should ever retain a grateful remembrance of his friends in Poland. But that his acceptance of any other sceptre would amount to an abdication of that which he deemed his right. That therefore he was resolved to remain in his present forlorn condition, possessing less hopes than ever of being restored, rather than to do the least act of prejudice to his family.' The same year, at an interview between king William and Louis, the latter proposed that the prince of Wales, James's son, should succeed to the throne of England, after the death of William. The king with some hesitation agreed to this request. He even engaged to procure the repeal of the act of settlement; and to declare, by another, the prince of Wales successor to the throne. Even this proposal, however, was rejected by the high-minded James. He told the king of France, that, though he could suffer with patience the usurpation of his nephew upon his right, he would never permit his own son to be guilty of the same injustice. He urged, that, should the son reign in his father's lifetime, that circumstance would amount to a formal renunciation. That the prince of Wales, by succeeding to the prince of Orange, would yield his sole right which was that of his father, &c. From this time James seems to have relinquished every hope of his restoration, and to have resigned himself entirely to the austerities of religious enthusiasm, and that melancholy which superstition, as well as his uncommon misfortunes, had impressed on his mind. In the beginning of September, 1701, when he was, according to his daily custom, at public prayers, he fell suddenly into a lethargy; and, though he recovered his senses soon after, he languished but for a few days, and expired on the 6th of that month. The French king, with great humanity, paid him several visits during his sickness; and exhibited every symptom of compassion, affection, and respect. On the last occasion of this kind he said to the dying James, 'I come to acquaint you, Sir, that when God shall please to call your majesty from this world, I shall take your family under my protection, and acknowledge your son, as he then will certainly be, king of Great Britain and Ireland.'

Though the defeat of the French fleet at La Hogue had put king William out of all danger from any further attempts from that quarter, he by no means possessed his throne with tranquillity. The want of a common enemy produced dissensions among the people, and William began to find as much uneasiness from his parliament at home as from an enemy in the field. This uneasiness was not a little heightened by the death of his queen, who was taken off by the small pox on the 28th December, 1694. For some time he was under a sincere concern for her loss; but he soon lost all other anxieties in the greatness of his apprehension for the balance of power, and the fluctuating interests of Europe.

One of his chief motives for accepting the crown had been to engage England more deeply in the concerns of Europe; and all his policy consisted in forming alliances against France. But many of the English had no such animosity against the French. These, therefore, considered the interest of the nation as sacrificed to foreign connexions; and complained that the continental war fell most heavily on them. At last William became fatigued with the opposition and bickerings of his parliament. He admitted every restraint upon the prerogative in England, upon condition of being properly supplied with the means of humbling France. For the prosecution of the French war, the sums granted were indeed incredible. Now began the operations of the never-terminable national debt. The parliament, not contented with furnishing such sums of money as they were capable of raising by the taxes of the year, mortgaged those taxes; first irregularly and temporarily, then in a more systematic and permanent manner. The war with France continued during the greatest part of this reign; but at length the treaty of Ryswick, in 1697, put an end to those contentions, in which England had engaged without policy, and came off without advantage. In the general pacification, her interest seemed entirely deserted; and for all the treasures she had sent to the continent, and all the blood which had been shed there, the only equivalent received was an acknowledgment of William's title from the king of France. The king, however, being freed from a foreign war, now set himself to strengthen his authority at home. He at first earnestly wished to keep up those forces which had been granted him during the time of danger. The commons however, to his great mortification, passed a vote, that all soldiers in the English pay, exceeding 7000 men, should be forthwith disbanded; and that those retained should be natural born subjects of England. With this vote the king was so exceedingly displeased, that he is said at one time to have formed a design of abandoning the government. From this, however, his ministers diverted him, and even persuaded him to pass the bill. These altercations continued during the remainder of king William's reign. He considered the commons as a body of men ambitious of power, and bent upon obstructing all his projects to secure the liberties of Europe: he veered to Whigs and Tories indiscriminately, as interest or the immediate exigence demanded; and evidently considered England as a place of labor, anxiety, and altercation. When he had any time for relaxation, he retired to Loo in Holland, where, among a few friends, he indulged in those festivities which he relished. Here he planned the different successions of the princes of Europe, and labored to undermine the schemes and the power of Louis, his rival in politics and fame. William indeed could scarcely live without being at variance with the French court.

Peace had hardly been concluded with that nation, when he began to think of resources for carrying on a new war, and for inlisting his English subjects in a continental confederacy. Several arts were used for inducing the people to second his aims; and the whole

nation seemed at last to join in desiring a new French war. He had been in Holland concerting with his allies operations for a new campaign. He had engaged in a negociation with the prince of Hesse; who assured him, that, if he would besiege and take Cadiz, the admiral of Castile and several other grandees of Spain would declare for the house of Austria. The elector of Hanover had resolved to concur in the same measures; the king of the Romans, and prince Louis of Baden, undertook to invest Landau, while the emperor promised to send a powerful reinforcement into Italy: but death put a period to these mighty projects. William was naturally of a feeble constitution: and it was by this time almost exhausted. He had endeavoured to repair his health, or at least to conceal its decays, by exercise and riding. On the 21st February, 1702, in passing to Hampton Court from Kensington, his horse fell under him; and he was thrown with such violence, that his collar-bone was fractured. Being nearest the palace at Hampton, the fracture was reduced there; but in the evening, as he returned to Kensington in a coach, the motion of the carriage disunited the fracture. This proved a fatal miscarriage of the case. For some time he appeared in a fair way of recovery; but, falling asleep on his couch, he was seized with a shivering, which terminated in a fever and diarrhœa. Perceiving his end approaching, the subjects of his former care lay next his heart; and the fate of Europe seemed to remove the sensations he might feel for his own. The earl of Albermarle arriving from Holland, he conferred with him in private on the posture of affairs abroad. Two days after, having received the sacrament from archbishop Tennison, he expired on Sunday, March 8th; having lived fifty-two years, and reigned thirteen. —He was in his person of a middle stature, and thin habit. He had an aquiline Roman nose, sparkling eyes, a large forehead, and a grave solemn aspect. He left behind him the character of a great politician, though he had never been popular; and of a formidable general though he had seldom been victorious. Cunningham, his panegyrist, adds that of sincere piety. He was succeeded by the princess Anne, daughter of James II. and younger sister of his deceased queen Mary II.

Anne ascended the throne in the thirty-eighth year of her age, to the general satisfaction of all parties. William had died at the eve of a war with France; and the new queen, who generally took the advice of her ministry on every important occasion, was now urged by opposite counsels; part of her ministry being inclined to war, and another part to peace. At the head of those who opposed a war with France, was the earl of Rochester, lord lieutenant of Ireland, first cousin to the queen, and the chief of the Tory faction. At the head of the opposite party was the earl, afterwards duke, of Marlborough. That of Marlborough preponderated; the queen resolved to declare war; and communicating her intentions to the house of commons, by whom it was approved, war was accordingly proclaimed. In the declaration that announced hostilities, Louis was charged with having taken possession of a great part of the Spanish dominions; with designing to invade the liberties of Europe, to obstruct the freedom of navigation and commerce; and with having offered an unpardonable insult to the queen and her throne, by acknowledging the title of the pretender. This declaration of war on the part of England was seconded by similar declarations of the Dutch and Germans. Louis XIV., whose power had been greatly circumscribed by William, expected on the death of the latter to enter on a field open for new conquests and fame. At the news of the English monarch's death, he could not suppress his rapture; the people of Paris, and indeed through the whole kingdom, testified their joy in the most public manner. At seeing, therefore, such a combination against him, the French monarch was filled with indignation; but his resentment fell chiefly on the Dutch. He declared with great emotion, that as for those gentlemen pedlars, the Dutch, they should one day repent their insolence and presumption, in declaring war against him whose power they had formerly felt and dreaded. By these threats, however, the affairs of the allies were no way influenced. Marlborough was appointed general of the British forces, and by the Dutch he was chosen generalissimo of the allied army. He had learned the first rudiments of war under the famous marshal Turenne, having been a volunteer in his army; and by that general his future greatness was prognosticated. The first attempt that Marlborough made, to deviate from the general practice of the army, was to advance the subaltern officers, whose merits had been hitherto neglected. Regardless of seniority, wherever he found abilities, he was sure to promote the possessor; and thus he had all the upper ranks of commanders, rather remarkable for their skill and talents, than for their age and experience. In his first campaign, in the beginning of July 1702, he repaired to the camp at Nimeguen, where he found himself at the head of 60,000 men, well provided with all necessaries, and long disciplined by the best officers of the age. He was opposed on the part of France by the duke of Burgundy, a youth of very little experience in the art of war; but the real acting general was the marshal Boufflers, an officer of courage and activity. Wherever Marlborough, however, advanced, the French were obliged to retire before him, leaving all Spanish Guelderland at his discretion. The duke of Burgundy, thus finding himself obliged to retreat before the allies, returned to Versailles, leaving Boufflers to command alone. Boufflers retired to Brabant; and Marlborough ended the campaign by taking the city of Liege; in which he found an immense sum of money, and a vast number of prisoners. This good fortune consoled the nation for some unsuccessful expeditions at sea. Sir John Munden had permitted a French squadron of fourteen ships to escape him by taking shelter in the harbour of Corunna; for which he was dismissed the service by prince George. An attempt was made upon Cadiz by sea and land, Sir George Rooke commanding the navy, and the duke of

Ormond the land forces: but this also miscarried. At Vigo, however, the British arms were attended with better success. The duke of Ormond landed with 2500 men, six miles from the city, while, the fleet forcing their way into the harbour, the French fleet that had taken refuge there were burnt by the enemy, to prevent their falling into the hands of the English. Eight ships were thus burnt and run ashore; and ten ships of war were taken, with eleven galleons, and above a million of money in silver. In the West Indies, admiral Benbow had been stationed with ten ships to distress the enemy's trade. Being informed that Du Casse, the French admiral, was in those seas with a force equal to his own, he resolved to attack him; and soon after discovered the enemy's squadron, near St. Martha, steering along the shore. He quickly gave orders to his captains, formed the line of battle, and the engagement began. He found, however, that the rest of the fleet had taken some disgust at his conduct; and they permitted him to sustain, almost alone, the whole fire of the enemy. Nevertheless, the engagement continued till night, and he determined to renew it next morning. But he now had the mortification to perceive, that all the rest of his ships had fallen back, except one, which joined him in urging the pursuit of the enemy. Four days this intrepid seaman, assisted by only one ship, pursued and engaged the enemy, while his cowardly officers remained at a distance behind. His last day's battle was more furious than any of the former; alone, and unsupported by any of the rest, he engaged the whole French squadron; when his leg was shattered by a cannon ball, and he himself died soon after of his wounds. Two of his cowardly associates were shot on their arrival in England; one died in his passage thither; the rest were disgraced.

The next parliament, which was convened by the queen, was highly pleased with the success of the British arms on the continent. The house of commons, composed chiefly of Tories, voted 40,000 seamen, and the same number of land forces, to act in conjunction with those of the allies. Soon after, the queen informed the parliament, that she was pressed by the allies to augment her forces, and upon this it was resolved that 10,000 more men should be added to the continental army, but on condition that the Dutch should immediately break off all commerce with France and Spain; a condition which was readily complied with. In the beginning of April, 1703, the duke of Marlborough, assembling the allied army, opened the campaign with the siege of Bonn, the residence of the elector of Cologne. This held out but a short time. He next retook Huy; the garrison of which, after a vigorous defence, surrendered prisoners of war. Limburgh was next besieged, and surrendered in two days, and thus the campaign concluded; the allies having secured the country of Liege and the electorate of Cologne from the designs of the enemy. In the campaign of 1704 the duke of Marlborough informed the Dutch that it was his intention to march to the relief of the empire, which had been for some time oppressed by the French forces; and the states gave him full powers to act as he thought proper, with assurances of their assistance in all his endeavours. The French king, finding Boufflers no longer capable of opposing Marlborough, appointed the marshal de Villeroy in his place. But Marlborough, who, like Hanibal of old, was remarkable for studying the disposition of his antagonists, having no great fears from Villeroy, still proceeded to the assistance of the empire. Taking with him about 13,000 British troops, he advanced by hasty marches to the banks of the Danube; defeated a body of French and Bavarians stationed at Donavert; then passed the river, and laid under contribution the dukedom of Bavaria which had sided with the enemy. Villeroy, who at first attempted to follow his motions, seemed all at once to have lost sight of the enemy; nor was he apprized of his route till informed of his successes. But, in the mean time, marshal Tallard prepared, by another route, to obstruct Marlborough's retreat with an army of 30,000 men. He was soon after joined by the duke of Bavaria's forces; so that the French army in that part of the continent amounted to 60,000 veterans, commanded by the two best generals then in France. To oppose these, the duke of Marlborough was joined by a body of 30,000 men, under the celebrated prince Eugene. The allied army, with this reinforcement, amounted to about 52,000. After various marches, and countermatches, the two armies met at Blenheim. A terrible engagement ensued, in which the French were entirely defeated, and a country of 100 leagues in extent, fell into the hands of the conquerors. See BLENHEIM.

Soon after finishing the campaign of 1704, the duke of Marlborough repaired to Berlin, where he procured a reinforcement of 8000 Prussians, to serve under prince Eugene in Italy. Thence he proceeded to negociate for succours at the court of Hanover; and soon after returned to England, where he was received with every possible demonstration of joy. The arms of Britain, in the mean time, were no less fortunate by sea than by land. Gibraltar was taken by the prince of Hesse and Sir George Rooke: but so little was the value of this conquest then understood, that it was for some time in debate whether it was a capture worth thanking the admiral for; and at last it was considered as unworthy of public gratitude! Perhaps it has been since estimated as much above its value, as it was then doubtless estimated below it. Be that as it may, the British fleet, to the number of fifty-three ships of the line, soon after came up with that of France, consisting of fifty-two men of war, commanded by the count of Thoulouse, off the coast of Malaga; and this was the last great naval engagement in which the French for many years ventured to face the British on equal terms. The battle began at 10 A. M. and continued with great fury for six hours; when the van of the French began to give way. The British admiral for two days attempted to renew the engagement; but this was as cautiously declined by the French, who at last disappeared. Both sides claimed the victory, but the consequences decided it in favor of the British. In the mean time, the

Spaniards, alarmed at the taking of Gibraltar, sent the marquis of Villadurias with a large army to reduce it. France also sent a fleet of thirteen ships of the line: but part of them were dispersed by a tempest, and part taken by the British. Nor was the land army more successful. The siege continued for four months; during which time the prince of Hesse, who commanded the town for the English, gave many proofs of valor. At length the Spaniards, having attempted to scale the rock in vain, and finding no hopes of taking the place, drew off their men, and abandoned the enterprise. While the British were thus victorious by land and sea, a new scene of contention was opened on the side of Spain. Philip V., grandson of Louis XIV., had been placed on the throne of that kingdom, and received with the joyful concurrence of the greatest part of his subjects. He had also been nominated successor to the crown, by the late king of Spain's will. But, in a former treaty among the powers of Europe, Charles, son of the emperor of Germany, was appointed heir to that crown; and this treaty had been guaranteed by France herself, though she now resolved to reverse that consent in favor of a descendant of the house of Bourbon. Charles was still farther led on to contend for the crown of Spain, by the invitation of the Catalonians, who declared in his favor; and, with the assistance of the British and Portuguese, promised to arm in his cause. Upon his way to his newly assumed dominion, he landed in England; where he was received on shore by the dukes of Somerset and Marlborough, who conducted him to Windsor. Here he was kindly received by the queen; and furnished with 200 transports, thirty ships of war, and 9000 men. The earl of Peterborough, a man of romantic bravery, offered to conduct them; and his single service was rendered equivalent to armies. The first attempt of this general was on the city of Barcelona, at that time defended by a garrison of 5000 men. The fort Monjuc, situated on a hill that commanded the city, was attacked; the outworks were taken by storm, and the powder magazine was blown up by a shell; upon which the fort immediately surrendered, and the city soon after. The conquest of all Valencia succeeded the taking of Barcelona. Charles became master of Arragon, Carthagena, Grenada, and Madrid. The British general entered the capital in triumph, and there proclaimed Charles III. king of Spain without opposition. To these successes, however, very little regard was paid in Britain. The victories of the duke of Marlborough alone engrossed the public attention. In 1706 he opened the campaign with an army of 80,000 men. He was met by the French under Villeroy near the village of Ramillies. An engagement ensued, in which the duke gained a victory almost as complete as that of Blenheim had been; and the whole country of Brabant was the reward of the victors. See RAMILLIES.

The French troops were now dispirited; the city of Paris was in confusion; and Louis XIV., who had long been flattered with conquest, was now humbled to such a degree as almost to excite the compassion of his enemies. He intreated for peace, but in vain; the allies carried all before them; and his very capital began to dread the approach of the conquerors. But what neither his armies nor his politics could effect, was brought about by a party in England. The dissension between the whigs and tories saved France, now tottering on the brink of ruin. The councils of the queen had hitherto been governed by a whig ministry; for, though the duke of Marlborough started in the interest of the opposite party, he soon joined the whigs, as he found them most sincere in the design of humbling France. The people, however, were in fact beginning to change, and a general spirit of toryism to take place. The queen's personal virtues, her successes, her deference for the clergy, and their great veneration for her, began to have a prevailing influence over the nation. People of every rank were not ashamed to defend the most servile tenets, when they tended to flatter the sovereign, or increase her power. They argued in favor of strict hereditary succession, divine right, and non-resistance to the monarch. The Tories, though they joined in vigorous measures against France, were never ardently her enemies: they rather secretly hated the Dutch, as of principles very opposite to their own; and longed for an opportunity of withdrawing from their friendship. They began to form plans of opposition to the duke of Marlborough. Him they considered and described as a self-interested partisan, who sacrificed the real advantages of the nation, in protracting a ruinous war, for his own private emolument and glory. They depicted the country as oppressed with an increasing load of taxes, which, by a continuance of the war, must become an intolerable burden. In the mean time, a succession of losses began to dissipate the conquering frenzy that had seized the nation, and to incline them to wish for peace. The earl of Galway, who commanded the army in Spain, was utterly defeated at Almanza, by the duke of Berwick; and, in consequence of this victory, all Spain, except the province of Catalonia, reverted to the power of Philip V. An attempt was made upon Toulon, by the duke of Savoy and prince Eugene by land, and an English fleet by sea; but to no purpose. The fleet under Sir Cloudesly Shovel, having set sail for England, was driven by a violent storm on the rocks of Scilly. His own ship was lost, and every person on board perished. Three more ships met with the same fate; while three or four others were saved with the utmost difficulty. In Germany, marshal Villars carried all before him, and was upon the point of restoring the elector of Bavaria. The only hopes of the people lay in the activity and conduct of the duke of Marlborough, who opened the campaign of 1707, about the middle of May; but even here they were disappointed. The duke declined an engagement; and, after several marchings and countermarchings, both armies retired into winter quarters about the end of October. The French made vigorous preparations for the next campaign; and the duke returned to England, to meet with a reception which he neither expected nor deserved.

The most remarkable transaction, however, of this year, and indeed of this whole reign, was

the union between the two kingdoms of Scotland and England. Though governed by one sovereign, since the accession of James to the throne of England, yet each nation continued to be ruled by its respective parliament; and often pursued opposite interests to those of its neighbour. A union had been unsuccessfully attempted more than once, and had indeed been the cause of bloody wars so long back as the time of Edward I. and III. In all the former proposals on that subject, however, both nations were supposed to remain free and independent; each having its own parliament, and subject only to such taxes, and other commercial regulations, as those parliaments should respectively judge expedient. After the destruction of the Darien colony, king William had endeavoured to allay the national ferment by resuming the affair of a union, with as much assiduity as his warlike disposition would allow. The terms proposed were the same with those formerly held out, viz. a federal union, somewhat like that of the states of Holland. With this view the Scots were prevailed on to send twenty commissioners to London; who, with twenty-three on the part of England, met at Whitehall in October 1702. Here they were honored with a visit from the queen; but the treaty was entirely broken off at this time, by the Scottish commissioners insisting, that the rights and privileges of their countrymen trading to Africa and the Indies should be preserved and maintained. It was, however, resumed in 1706, when the commissioners again met on the 16th of April. The Scottish commissioners still proposed a federal union; but the English were determined on an incorporation, which should not afterwards be dissolved by a Scottish parliament. Nothing but this, they said, could settle a perfect and lasting friendship betwixt the two nations. The commissioners from Scotland, however, resisted this; but the queen, being persuaded to pay two visits in person to the commissioners, exerted herself so vigorously, that a majority was at last gained; and all the rest yielded, though with reluctance, excepting Lockhart of Carnwarth, who could by no means be persuaded either to sign or seal the treaty. The articles being fully prepared on the 22nd of July, they were presented next day to the queen by the lord keeper, in the name of the English commissioners; and a sealed copy of the instrument was likewise delivered by the lord chancellor of Scotland. They were most graciously received; and the queen the same day dictated an order of council, threatening with prosecution such as should be concerned in any discourse or libel, or in laying wagers with regard to the union! The treaty, however, was regarded in Scotland with very different feelings. The terms had been carefully concealed, so that nothing transpired, till the whole was at once laid before parliament. The ferment was then so general, that all ranks of people, however divided in other respects, united against this detested treaty. The nobility and gentry were exasperated at the annihilation of their parliament, and the consequent loss of their influence and credit. The body of the people cried out, that the independence of the nation was sacrificed to treachery and corruption. They insisted that the obligation laid on their members to stay in London, attending on the British parliament, would drain the country of its money, impoverish the members themselves, and subject them to the temptation of being corrupted. Nor was the commercial part of the people better satisfied. The dissolution of the India company, the taxes laid on the necessaries of life, the vast number of duties, customs, and restrictions, upon trade, &c., were all matters of complaint. The most violent disputes took place in the parliament. Lord Belhaven made a most pathetic speech, enumerating the miseries that would attend this treaty; almost every article of it was the subject of a protest; addresses against it were presented to parliament by the convention of royal boroughs the commissioners of the general assembly, the company trading to Africa and the Indies, as well as from shires, stewartries, boroughs, towns and parishes, without distinction of whig, tory or presbytery. Nor was the resentment of the people without doors less than that of the members within. A coalition was formed between the presbyterians and cavaliers; and to such a height did the resentment of the people arrive, that they chose officers, formed themselves into regiments, provided horses and ammunition burnt the articles of union, justified their conduct by a public declaration, and prepared by force to dissolve the parliament. The duke of Queensberry, the chief promoter of the union, was obliged to move through the capital guarded by double lines of horse and foot.

The articles of the treaty were, however, ratified by parliament, with some trifling variations, on the 25th of March, 1707; when the duke of Queensberry dissolved that ancient assembly, and Scotland ceased to be a separate kingdom. The queen now informed the English parliament, that the treaty of union, with some additions and alterations, was ratified by an act of the parliament of Scotland: that she had ordered it to be laid before them, and hoped it would meet their approbation. She observed, that they had now an opportunity of putting the last hand to a happy union of the two kingdoms: and that she should look upon it as a particular happiness, if this great work, so often attempted before without success, could be brought to perfection in her reign. This important measure was completed on the 1st of May, 1707; and the island took the name of 'The United Kingdom of GREAT BRITAIN.' The queen again expressed her satisfaction when it received the royal assent:—'She did not doubt,' she said, 'but the whole business would be remembered and spoke of hereafter, to the honor of those who had been instrumental in bringing it to such a happy conclusion. She desired that her subjects of both kingdoms would from henceforward behave with all possible respect and kindness towards one another; that so it might appear to all the world they had hearts disposed to become one people.' The 1st of May was appointed a day of public thanksgiving; and congratulatory addresses were sent up from all parts of England, excepting the university of Oxford. The Scots however, were totally silent on the occasion. In

the treaty of union, the English commissioners were not only able statesmen, but, for the most part, well skilled in commercial affairs, which gave them an evident advantage over those of Scotland. Hence they were overmatched by the former, in the great objects which were to give the turn to national prosperity; though they were very careful to preserve all their heritable offices, superiorities, jurisdictions, and other privileges and trappings of the feudal aristocracy.

In 1708 there was a warm debate in a committee of the house of lords, occasioned by a bill passed by the commons, for rendering the union of the two kingdoms more entire and complete; whereby it was enacted, that, 'from the 1st of May, 1708, there should be but one privy council in the kingdom of Britain.' Of this affair Mr. Cunningham gives a particular account, and informs us, that he himself had a hand in it, and that he had 'from his youth borne a just hate to the privy council of Scotland.' The arguments for the dissolution were its enormous stretches of power and acts of cruelty; that it could now be of no other use in Scotland, than that the court might thereby govern every thing at pleasure, and procure such members of parliament as they thought proper; against which both Scots and English ought carefully to guard themselves. On the other hand, it was argued, that the abuse of the power complained of was no argument for the entire dissolution of the council, though it was for a restriction and limitation of it; that it was necessary that a privy council should remain in Scotland, out of regard to the ancient customs of the country, and to restrain the rage of the people, which was then ready to break out beyond all bounds. The dissolution, however, was carried by fifty against forty; after which, the nation being deprived of this last fragment of their ancient government, the opposers of the union raised the animosities of the people to a dangerous height; but the ferment abated, after an ineffectual attempt in favor of the pretender.

We now return to the duke of Marlborough, who had gone over to Flanders, where he resolved to push his good fortune. Peace had been offered more than once; treaties entered upon, and as often frustrated. After the battle of Ramillies, the king of France had employed the elector of Bavaria to write letters in his name to the duke of Marlborough, containing proposals for opening a congress. He offered to resign either Spain and its dominions, or the kingdoms of Naples and Sicily, to Charles of Austria, and to give a barrier to the Dutch in the Netherlands. But these terms were rejected. The two armies once more met, in numbers nearly equal, at Oudenarde. See OUDENARDE.' In this engagement the electoral prince of Hanover, afterwards George II. of Britain, greatly distinguished himself, and gained the whole glory of the first attack. His horse was killed under him, and colonel Luschki close by his side. An engagement ensued in which the French were defeated, and Lisle, Ghent, Bruges, and all the other towns in Flanders soon after fell into the hands of the victors. The campaign ended with fixing a barrier to the Dutch provinces, and it now only remained to force a way into the provinces of the enemy. The French king, being now in a manner reduced to despair, again sued for peace: but the demands of the allies were so high, that he was obliged to prepare for another campaign, in 1709. The first attempt of the allies was on the city of Tournay, garrisoned by 12,000 men, and exceedingly strong both by nature and art. After a siege, of twenty-one days, the town capitulated; and a month afterwards the citadel, which was still stronger than the town. Next followed the bloody battle of Malplaquet; where the allied army, consisting of 110,000 men, attacked the French consisting of 120,000, strongly posted and fortified in such a manner that they seemed quite inaccessible. See MALPLAQUET. The allied army, however, drove the French from their fortifications: but their victory cost them 20,000 of their best troops. The consequence of this victory was the surrender of the city of Mons, which ended the campaign.

The last campaign of the duke of Marlborough, in 1711, excelled, perhaps, all his former exploits. He was opposed to marshal Villars, who had commanded the French in the battle of Malplaquet, and he so contrived his measures, that, by marching and countermarching, he induced the enemy to quit a strong line of entrenchments, without striking a blow. He then took possesssion of the enemy's line. This was followed by the taking of Bouchain, which was the last military achievement of this great general. By a continuance of successive and almost unparalleled victories, he had gained the allies a prodigious extent of country; had perpetually advanced, and never retreated before his enemies, nor lost an advantage he had obtained over them. He more frequently gained the enemy's posts without fighting; but, where he was obliged to attack, no fortifications were able to resist him He had never besieged a city which he did not take, nor engaged in a battle in which he did not come off victorious. Thus the allies had reduced Spanish Guelderland, Limbourg, Brabant, Flanders, and Hainault; they were masters of the Scarpe; the capture of Bouchain had opened for them a way into the heart of France, and another campaign might have made them masters of Paris; but, on the duke's return from this campaign, he was accused of having taken a bribe of £6000 a-year from a contractor, and the queen thought proper to dismiss him from all his employments.

On his removal, the command of the British forces was given to the duke of Ormond. Prince Eugene complained much of the inactivity of this general, though he seemed to be unacquainted with his treachery; while the whole army loaded him with execrations, calling him 'a stupid tool, and a general of straw.' All this, however, was in vain; the duke continued to prefer the queen's commands to every other consideration. The disgrace of the duke of Marlborough had been owing to the prevalence of the Tory party, who had now ejected the Whig ministry; the consequence was, that in spite of all the remonstrances, memorials, &c., of the allies, the British army in Flanders was ordered not to act offensively. The operations of the allies therefore languished; a considerable body was cut off at Denain, and the French retook some towns At last, in 1713,

a peace was concluded. In the treaty it was stipulated, that Philip V., now acknowledged king of Spain, should renounce all right to the crown of France; that the duke of Berry, Philip s brother, and after him in succession, should also renounce his right to the crown of Spain, in case he became king of France; and that the duke of Savoy should possess the island of Sicily with the title of king, together with Fenestrelles, and other places on the continent. The Dutch had the barrier granted them which they so much desired; and the house of Austria was taxed to supply the wants of the Hollanders, who were put in possession of the strongest towns of Flanders. The fortifications of Dunkirk were demolished. Spain gave up Gibraltar and the island of Minorca. France resigned her pretensions to Hudson's Bay, Nova Scotia, and Newfoundland; but was left in possession of Cape-Breton, and the liberty of drying fish upon the shore. Among the articles glorious to the British nation, their setting free the French Protestants, confined in the prisons and galleys for their religion, was not the least meritorious. For the emperor it was stipulated, that he should possess the kingdom of Naples, the duchy of Milan, and the Spanish Netherlands. The king of Prussia was to have Upper Guelder; and a time was fixed for the emperor's acceding to these articles, as he had for some time refused to assist at the negociation. This famous treaty was signed at Utrecht on the last day of March, 1713.

The year 1713 was also remarkable for an attempt of the Scottish peers and commons to dissolve the union. During the debates on this subject, the earl of Peterborough endeavoured to prove the impossibility of dissolving the treaty, which he compared to a marriage, that, being once contracted, could not be dissolved by any power on earth. He observed, that though England, who in the national marriage, must be supposed to represent the husband, had in some instances been unkind to the lady, she ought not so speedily to sue for a divorce; and added, when the union was termed a mere political expedient, that it could not have been made more solemnly, unless, like the ten commandments, it had come from heaven. The duke of Argyl declared that, unless it were dissolved, he did not long expect to have either property left in Scotland, or liberty in England. The motion, however, was overruled in the house: but the discontent of the people continued. Whether, indeed, the ministry at this time did not wish to alter the line of succession, cannot be clearly made out; but certain it is, that the Whigs firmly believed it, and the Tories but faintly denied the charge. The suspicions of the former became every day stronger, when they saw a total removal of the Whigs from all places of trust and confidence, and their employments bestowed on the professed advocates of an unbroken hereditary succession. The violent dissensions between these two parties, their unbounded licentiousness, cabals, and tumults, made the queen's situation a very perplexing one; her health visibly declined; and, on the 28th of July 1714, she fell into a lethargic insensibility. The next day the physicians despaired of her life. All the members of the privy council, without distinction, were now summoned from the different parts of the kingdom; and they began to provide for the security of the constitution. A letter was sent to the elector of Hanover, informing him of the queen's situation, and desiring him to repair to Holland, where he would be attended by a British squadron to convey him to England. At the same time they despatched instructions to the earl of Stafford at the Hague, to desire the States General to be ready to perform the guarantee of the protestant succession. Precautions were also taken to secure the sea-ports and the fleet. On the 30th of July the queen seemed to be somewhat relieved by the medicines which had been given her. She arose from her bed about 8 A. M. and walked a little. She was soon after, however, seized with an apoplectic fit; and, continuing all night in a state of stupefaction, expired the following morning, a little after seven o'clock, in the fiftieth year of her age, and thirteenth of her reign. This princess seemed rather fitted for the duties of private life than a public station: being a pattern of conjugal fidelity, a good mother, a warm friend, and an indulgent mistress. To her honor it must be recorded, that during her reign none suffered for high treason.

5. *The history of Great Britain from the accession of the house of Hanover to the death of George II.*—With the foregoing reign ended the line of the Stuarts: a family equally remarkable for their misfortunes and misconduct. The queen had no sooner resigned her breath than the privy council met, and three instruments were produced by which the elector of Hanover appointed several of his known friends to be added as lords justices to the seven great officers of the kingdom. Orders were also immediately issued for proclaiming George king of England, Scotland, and Ireland. The regency appointed the earl of Dorset to carry him the intimation of his accession to the crown, and to attend him in his journey to England. They sent the general officers, in whom they could confide, to their posts: reinforced the garrison of Portsmouth, and appointed the celebrated Mr. Addison secretary of state: but no tumult, no commotion, rose against the accession of the new king. King George I. landed at Greenwich, where he was received by the duke of Northumberland, captain of the lifeguards, and the lords of the regency. He was fifty-four years old when he ascended the British throne. His mature age, his sagacity and experience, his numerous alliances, and the general tranquillity of Europe, all contributed to establish his interests, and promise him a peaceable and happy reign. Soon after his arrival in England, he was heard to say, 'My maxim is, never to abandon my friends, to do justice to all the world, and to fear no man.' To the qualities of resolution and perseverance, he joined great application to business. He, however, studied the interests of the people he had ruled, more than those of Great Britain. When he retired to his bed chamber, after his first landing, he sent for such of the nobility as had distinguished themselves by their zeal for his succession, and expressed the greatest regard for

the duke of Marlborough, just then arrived from the continent. He professed the same friendship for the other leaders of the Whigs; but the Tories found themselves at once excluded from favor. An instantaneous change was made in all the offices of trust, honor, or advantage. The Hanoverians, as they were called, governed the senate and court, oppressed whom they would, and bound the lower orders of people by severe laws: against this the Tories or Jacobites raised the most terrible outcries; and, had the pretender been a man of any judgment or abilities, a fair opportunity was now offered him of striking a decisive blow. They affirmed that, under a Whig administration, heresy and impiety were daily gaining ground. The lower orders of the clergy joined in these complaints, and pointed out several tracts published in favor of Arianism and Socinianism. The ministry, however, not only refused to silence the delinquents, but silenced the clergy themselves, and forbad their future disputations on these topics.

The parliament was now dissolved, and another called by a very extraordinary proclamation. In this the king complained of the evil designs of men disaffected to his succession; and of their having misrepresented his conduct and principles. He expressed his hopes, that his subjects would send up to parliament the fittest persons to redress the present disorders. He intreated that they would elect such in particular, as had expressed a firm attachment to the protestant succession, when it was in danger. In the election that ensued, uncommon vigor was exerted on both sides; but by dint of the monied interest that prevailed in corporations, and the activity of the ministry, a great majority of Whigs was returned both in England and Scotland. Upon the first meeting of parliament, the most rigorous measures were resolved upon against the late ministry. A committee was appointed to inspect the papers relative to the treaty of Utrecht, and to select such as might afford grounds of accusation against the negociators. The earl of Oxford was impeached of high-treason, and sent to the Tower. The violence of the house of commons produced equal violence without doors. Tumults became every day more frequent, and served only to increase the severity of the legislature. An act was now passed, declaring that if any persons to the number of twelve, unlawfully assembled, should continue together one hour after being required to disperse by a justice of peace or other officer, and after hearing the acts against riots read in public, they should be deemed guilty of felony without benefit of clergy. These proceedings excited the indignation of the people, who perceived that the avenues of royal favor were closed to all but a faction. Great discontent arose in Scotland, where, to their other grievances, they joined that of the union, which they were taught to consider as an oppression, and the malcontents of that country found active friends in England. Some of the Tory party, who were attached to the Protestant religion, and of moderate principles in government, began to associate with the Jacobites, and to wish in earnest for a revolution. Scotland first reared the standard of revolt. The earl of Mar, assembling 300 of his vassals in the Highlands, proclaimed James III. at Castleton; and assumed the title of lieutenant general of his majesty's forces. To second these attempts, two vessels arrived from France, with arms, ammunition, and officers, together with assurances to the earl, that the pretender himself would shortly follow. In consequence of this, the earl soon found himself at the head of 10,000 men well armed and provided. He secured the pass of Tay at Perth, made himself master of the whole province of Fife and of the sea-coast on that side of the frith of Forth; and marched thence to Dumblain, as if he had intended to cross the Forth at Stirling bridge. But here he was informed, that the duke of Argyle, who on this occasion was appointed commander in chief of all the forces in North Britain, was advancing against him, and he retreated. Soon after, however, being joined by some of the clans under the earl of Seaforth, and general Gordon, he resolved to face the enemy, and directed his march towards the south. The duke of Argyle resolved to give him battle near Dumblain. In the morning, therefore, he drew up his army, which did not exceed 3500 men, in order of battle; and, when the earl attempted to surround him, he received on his left wing the centre of the enemy. Though much inferior in strength and numbers, the royal forces seemed for a while victorious, and the earl of Clanronald was killed. But Glengary, who was second in command, undertook to inspire his intimidated companions with courage; and waving his bonnet cried out several times Revenge! This animated the rebel troops to such a degree, that they followed him to the point of the enemy's bayonets, and got within their guard. A total rout of this wing of the royal army began now to ensue. In the mean time the duke of Argyle, who commanded in person on the right, attacked the left of the rebels; and drove them before him for two miles. Having entirely broken that wing of the enemy, and driven them over the river Allan, he returned to the field of battle; where, to his great mortification, he found the enemy as decidedly victorious, and patiently waiting for the assault. Neither party, however, cared to begin the attack. In the evening both drew off, and each claimed the victory. All the advantages of a victory, however, belonged to Argyle. He had interrupted the progress of the rebels; and in their circumstances delay was defeat. The earl of Mar, in fact, soon found it so. The castle of Inverness was delivered up by lord Lovat, who had hithesto professed to act in the interest of the pretender; the marquis of Tullibardine forsook the earl, in order to defend his own part of the country; and many of the clans, seeing no likelihood of coming to a second engagement, returned at once home.

In the mean time, the cause of the rebels was still more unsuccessfully prosecuted in England. James had undertaken so heedlessly the project, in which the duke of Ormond and lord Bolingbroke were engaged, that lord Stair, the English ambassador at Paris, penetrated all his designs, and sent faithful accounts of all his measures to the ministry at home. Upon the first rumor,

therefore, of an insurrection, several lords and gentlemen were imprisoned. But these precautions were not able to prevent an attempt of the Jacobites in the western counties. All their preparations, however, were weak and ill conducted; every scheme was betrayed to government as soon as projected. The university of Oxford was treated with great severity on this occasion. Major general Pepper, with a strong detachment of dragoons, took possession of the city at day break, declaring that he would instantly shoot any of the students, who should presume to appear without the limits of their respective colleges. In the northern counties, the insurrection came to greater maturity. In October, 1715, the earl of Derwentwater and Mr. Forster took the field with a body of horse, and, being joined by some gentlemen from the borders of Scotland, proclaimed James III. Their first attempt was to seize upon Newcastle, in which they had many friends; but, finding the gates shut, they retired to Hexham. To oppose these, general Carpenter was despatched to the north by government with a body of 900 men. The rebels took the route to Jedburgh, where they hoped to leave Carpenter on one side, and penetrate into England by the western border. This was an effectual method of cutting themselves off from retreat or assistance. A party of Highlanders, who had joined them by this time, at first refused to accompany them in such a desperate incursion, and one-half of them actually returned to their own country. At Brampton Mr. Forster opened his commission of general, which had been sent him by the earl of Mar, and there proclaimed James III. They continued their march to Penrith, where the body of the militia that was assembled to oppose them fled. From Penrith they proceeded by the way of Kendal and Lancaster to Preston, of which they took possession without resistance. But this was the last stage of their ill-advised excursion; for general Wills, at the head of 7000 men, came up to attack them; and from his activity there was no escaping. They now, therefore, began to raise barricadoes about the town, and to put the place in a posture of defence: repulsing the first attacks of the royal army with success. Next day, however, Wills was reinforced by Carpenter, and the town was invested on all sides. In this deplorable situation, to which they were reduced by their own rashness, Forster hoped to capitulate with the general; and accordingly sent to him colonel Oxburgh, who had been taken prisoner, to propose a surrender. Wills, however, alleged that he would not treat with rebels, and that the only favor they had to expect was to be spared immediate slaughter. These were hard terms, but no better could be obtained. They accordingly laid down their arms, and were put under a strong guard. To intimidate their partizans, in the neighbourhood, a few of the officers, that had deserted from the royal army, were shot by order of a court martial: the soldiers were imprisoned at Chester and Liverpool; and the noblemen and considerable officers were sent to London, where they were led through the streets pinioned and bound together.

In the mean time Louis XIV., who had always espoused the interest of the excluded family, was just dead; and the duke of Orleans, who succeeded in the government of the kingdom, was averse to lending the pretender any assistance. Though James therefore might, at this period, easily have seen that his affairs were desperate; yet, with his usual infatuation, he resolved to hazard his person among his friends in Scotland. Passing through France in disguise, and embarking in a small vessel at Dunkirk, he arrived after a voyage of a few days on the coasts of Scotland, with only six gentlemen in his train. At Fetteresso he was met by the earl of Mar, and about thirty noblemen and gentlemen of the first quality; and here he was solemnly proclaimed. Hence he went to Dundee, where he made a public entry; and in two days more arrived at Scoon, where he ordered thanksgivings to be offered for his safe arrival; enjoined the ministers to pray for him in their churches; and, without the smallest share of power, went through the ceremony of a coronation. Scarcely had he concluded this piece of unimportant parade, when he resolved to abandon the enterprise. Having made a speech to his grand council, he informed them of his want of money, arms, and ammunition, for undertaking a campaign, and therefore deplored that he was obliged to leave them. Then he re-embarked on board a small French ship, that lay in the harbour of Montrose, accompanied with several lords, his adherents, and in five days arrived at Gravelines.

General Gordon, who was left commander in chief of the forces, now proceeded at their head to Aberdeen, where he secured three vessels to sail northward, which took on board such persons as intended to make their escape to the Continent. He then continued his march through the Highlands, and quietly dismissed his forces as he proceeded. With such expedition was this retreat made, that the duke of Argyle, with all his activity, could never overtake his rear, which consisted of 1000 horse. The rebellion being ended, the law was put in force with all its terrors; and the prisons of London were crowded with those deluded persons, whom the ministry seemed resolved not to pardon. The commons, in their address to the crown, declared they would prosecute in the most rigorous manner the authors of the late rebellion; and their measures were as vindictive as their resolutions were speedy. The earls of Derwentwater, Nithsdale, Carnwath, and Wintown, the lords Widrington, Kenmuir, and Nairne, were impeached; and, upon pleading guilty, all but lord Wintown received sentence of death. No intreaties could prevail upon the ministry to spare these unhappy noblemen. The house of lords even presented an address to the throne for mercy, but without effect; the king only answered, that on this, as on all other occasions, he would act as he thought most consistent with the dignity of the crown and the safety of the people. Orders were accordingly despatched for executing lords Derwentwater, Nithsdale, and Kenmuir, immediately; the rest were respited. Nithsdale escaped, his wife most adroitly contriving to substitute her own person for his, the day before his

intended execution. An act of parliament was next passed, for trying the private prisoners in London, and not in Lancashire where they were taken: a step considered by lawyers as an alteration of the ancient constitution of the kingdom, by which every prisoner should be tried in the place where the offence was committed. In the beginning of April, commissioners for trying the rebels met in the court of common pleas, when bills were found against Mr. Forster, Mr. Macintosh, and twenty of their confederates. Forster escaped from Newgate, and reached the Continent in safety; the rest pleaded not guilty. After this, Macintosh, and several other prisoners, also broke out of Newgate. The court proceeded to the trial of those that remained; four or five were hanged, drawn, and quartered at Tyburn; twenty-two were executed at Manchester and Preston, and about 1000 were transported to North America. The rebellion being thus extinguished, the danger of the state was made a pretext for continuing the parliament beyond the term fixed for its dissolution. An act, therefore, was passed, repealing that by which it was to be dissolved every third year, and extending the term of its duration to seven years. The people might murmur at this encroachment, but expediency and power united to plead for it at the time, and it has ever since been found inexpedient to think of redress.

Domestic concerns being thus adjusted, the king resolved upon a voyage to the Continent. Charles XII. of Sweden was highly provoked against him for having entered into a confederacy with the Russians and Danes during his absence at Bender, and for having purchased from the king of Denmark the towns of Bremen and Verden. In consequence of this, Charles maintained a close correspondence with the dissatisfied subjects of Great Britain; and a scheme was formed for landing a body of Swedish forces, with the king at their head, to erect the standard of the Pretender in some part of the island. Count Gyllenburg, the Swedish minister in London, was active in the conspiracy; but, being seized with all his papers, the scheme was rendered abortive. A bill, however, was passed by the commons forbidding all commerce with Sweden; and George I. now entered into a new treaty with the Dutch and the regent of France, by which they agreed mutually to assist each other in case of invasion. But the death of the Swedish monarch, who was soon after killed at the siege of Frederickshall, put an end to all disquietude from that quarter.

Among the many treaties for which this reign was remarkable, one had been concluded, which was called the quadruple alliance. It was agreed between the emperor, France, Holland, and Britain, that the emperor should renounce all pretensions to the crown of Spain, and exchange Sardinia for Sicily with the duke of Savoy; and that the succession to the duchies of Tuscany, Parma, and Placentia, should be settled on the queen of Spain's eldest son, in case the present possessors should die without male issue. This treaty, however, was by no means agreeable to the king of Spain; and it became consequently prejudicial to the English, as it interrupted their commerce with that kingdom. A war soon after commenced between Spain and the emperor, who was considered as the principal contriver of the treaty; and a numerous body of Spanish forces was sent into Italy to support Philip's pretensions in that quarter. The regent of France attempted in vain to dissuade him; the king of England also offered his mediation in vain; their interposition was considered as partial and unjust. A Spanish war was then resolved on; and a squadron of twenty-two ships was placed under the command of Sir George Byng, and ordered to sail for Naples. Here he was received with the greatest joy, and informed that the Spaniards, to the amount of 30,000 men, were then just landed in Sicily. On learning this he resolved to sail thither to pursue the Spanish fleet, and coming round Cape Faro perceived two small Spanish vessels; pursuing which, he was led to their companions, whom, before noon, he discovered in line of battle, amounting to twenty-seven sail. Notwithstanding their superiority in number, the Spaniards attempted to make their escape: but, finding it impossible, they kept up a running fight; in spite of which, they were all taken except three. Sir George Byng behaved on this occasion with great prudence and resolution; and the king wrote him a letter with his own hand, approving his conduct. This rupture with Spain was thought to be favorable to the interests of the pretender; as it was hoped, that, by the assistance of cardinal Alberoni, the Spanish minister, a new insurrection might be excited in England. The duke of Ormond was even fixed upon to conduct this expedition; and he obtained from the Spanish court a fleet of ten ships of war and transports, having on board 6000 regular troops, with arms for 12,000 more. But fortune was still as unfavorable as ever. Having set sail, and proceeded as far as Cape Finisterre, he was encountered by a violent storm, which disabled his fleet, and frustrated the expedition. This, together with the bad success of the Spanish arms in Sicily and other parts of Europe, induced Philip to wish for a cessation of arms; and he at last consented to sign the quadruple alliance, by which peace was again restored to Europe.

Tranquillity being thus established, the ministry proceeded to secure the dependency of the Irish parliament on that of England. A Mr. Maurice Annesley had appealed to the British house of peers from a decree made by the Irish peers, and their decree was reversed. The British peers ordered the barons of the exchequer in Ireland to put Mr. Annesley in possession of the lands he had lost. But, when the barons obeyed this order, the Irish peers passed a vote against them, as having attempted to diminish the just privileges of the parliament of Ireland; and ordered their lordships to be taken under the custody of the black rod. On the other hand, the house of lords in England resolved, that the barons of the exchequer in Ireland had acted with great courage and fidelity; and addressed the king to signify his approbation of their conduct. To complete their triumph, a bill was prepared, by which the Irish house of lords was deprived of all right of final

jurisdiction. Mr. Pitt, on this occasion, said, that it would only increase the power of the English peers, who were already but too formidable. Mr. Hungerford demonstrated, that the Irish lords had always exerted their power of finally deciding causes. Notwithstanding all opposition, however, the bill was carried by a great majority, and soon after received the royal assent. This blow was severely felt by the Irish.

The celebrated South Sea scheme commenced in the year 1721. To explain this, as concisely as possible, it must be observed, that, ever since the Revolution, government had been obliged to borrow money from different companies of merchants; and, among the rest, from that company which traded to the South Sea. In 1716 the government being indebted to this company about £9,500,000 sterling, at the rate of 6 per cent. interest, Sir Robert Walpole formed a design of lessening the national debt, by giving the several companies the alternative, either of accepting a lower interest, namely, 5 per cent., or of being paid the principal. The companies generally chose rather to accept of the diminished interest; and the South Sea Company, in particular, having augmented their loan to £10,000,000, were contented to receive £300,000 annually as interest, instead of £600,000, which they formerly received. At this same period one Blount, a scrivener, proposed to the ministry, in the name of the South Sea Company, to buy up all the debts of the different companies, and thus for the South Sea Company to become the sole creditors of the state. The terms offered to government were extremely advantageous. The company was to redeem the debts of the nation out of the hands of the private proprietors, upon whatever terms they could agree on; and, for the interest of the sum thus redeemed, to be allowed by government 5 per cent. for six years; after which the interest was to be reduced to 4 per cent., and the debts to be at any time redeemable by parliament. For these purposes a bill passed both houses. But now appeared a part of the scheme pregnant with fraud and ruin. As the directors of the South Sea Company could not of themselves be supposed to possess a capital sufficient to buy up the debts of the nation, they were empowered to raise it by opening a subscription to an imaginary scheme for trading in the South Seas. All the creditors of government, therefore, were invited to come in, and exchange their securities, viz., the security of government for that of the South Sea Company. The directors' books were no sooner opened for the first subscription, than crowds came to effect this. The delusion was artfully continued and spread. Subscriptions in a few days sold for double the price they had been bought at. The scheme succeeded beyond even the projector's hopes, and the whole nation was infected with a spirit of avaricious enterprise. The infatuation still prevailing, the stock rose even to nearly ten times the value of what it was first bought for. After a few months, however, the people awoke from their dream of riches; and found that all the advantages they expected were merely imaginary, while thousands of families were involved in ruin. Many of the directors, by whose arts the public were taught to expect such great benefits from a traffic to the South Seas, had amassed considerable fortunes by their credulity. It was some consolation, however, to the people, to find the parliament sharing in the general indignation, and resolving to strip those unjust plunderers of their gains. Orders were given to remove all the directors of the South Sea Company from their seats in parliament, and the places they possessed under government; and the principal delinquents were punished by a forfeiture of all such possessions and estates as they had acquired during the continuance of this popular frenzy. The next care was to redress the sufferers. Several just and useful resolutions were taken by parliament, and a bill was prepared for repairing the late sufferings, as far as the inspection of the legislature could extend. Of the profit arising from the South Sea scheme, the sum of £7,000,000 was given back to the original proprietors; several additions were made to their dividends out of what was possessed by the company in their own right; and the remaining capital stock was divided among the old proprietors at the rate of 33 per cent. In the mean time petitions from all parts of the kingdom were presented to the house demanding justice; and the whole nation seemed exasperated to the highest degree. Public credit sustained a terrible shock. Some principal members of the ministry were deeply concerned in these fraudulent transactions. The bank was drawn upon faster than it could supply; and nothing was heard but the ravings of disappointment, and the cries of despair. By degrees, however, the effects of this terrible calamity wore off, and matters returned to their former tranquillity.

At this time a new war with Spain commenced. Admiral Hosier was sent to South America to intercept the Spanish galleons: but the Spaniards, being apprised of his design, re-landed their treasure. The greatest part of the British fleet sent on that expedition was rendered entirely unfit for service. The seamen were cut off in great numbers by the malignity of the climate, and the length of the voyage, while the admiral himself is said to have died of a broken heart. To retaliate these hostilities, the Spaniards undertook the siege of Gibraltar; but with little success. In this dispute France offered her mediation; and such a reconciliation as treaties could procure was the consequence; a temporary peace ensued, both sides only watching an advantageous opportunity to renew hostilities. Soon after the breaking up of the parliament, in 1727, the king resolved to visit his electoral dominions of Hanover. Having appointed a regency, to act in his absence, he embarked for Holland, and in three days arrived at Delden, to all appearances in perfect health. He supped there very heartily, and continued his journey early the next morning; but between eight and nine, ordering his carriage to stop, it was perceived that one of his hands lay motionless, and every attempt to quicken the circulation proved ineffectual. The king had but just strength enough to bid them hasten to Osna-

burgh, where he languished until eleven o'clock next morning, when he expired in the sixty-eighth year of his age, and thirteenth of his reign. His body was conveyed to Hanover for interment.

On the accession of George II. the two great parties into which the nation had so long been divided again changed their names, and were now called the court and country parties. Throughout this reign there seem to have been two great objects of controversy every session of parliament, viz. the national debt, and the number of forces to be kept in pay. The government, on the king's accession, owed more than £30,000,000 sterling; and, though there was a long continuance of profound peace, this sum was constantly increasing. The country party enquired how this could happen, and it was the business of the court to give plausible reasons for the increase. Demands for new supplies were made, either for the purpose of securing friends upon the continent, or guarding the kingdom from internal conspiracies, or of enabling the ministry to act vigorously in conjunction with the powers in alliance abroad. It was in vain alleged, that these expenses were incurred without prescience or necessity; and that the national debt, by multiplying and increasing taxes, would at last become an intolerable burden. These arguments were offered, canvassed, and rejected; but the court party was constantly victorious: and every demand was granted with cheerfulness and profusion.

In the reign of George II. arose 'the charitable corporation,' a society of men who professed to lend money at legal interest to the poor upon small pledges, and to persons of higher rank, upon proper security. Their capital was at first limited to £30,000, but they afterwards increased it to £600,000. Their funds were, as usual, raised by subscription, and the care of conducting their affairs was intrusted to a proper number of directors. This company having continued for more than twenty years, the cashier, George Robinson, member for Marlow, and the warehouse-keeper, John Thomson, disappeared in one day. £500,000 of capital were found to be sunk or embezzled, by means which the proprietors could not discover. They therefore in a petition represented to the house of commons the manner in which they had been defrauded. A secret committee being appointed to examine into this grievance, a most iniquitous scheme was soon discovered, in which Thomson and Robinson, in concert with some of the directors, had deliberately embezzled the capital of the company. No less than six members were expelled the house of commons, for sordid acts of knavery connected with this business. It was at this time asserted, in the house of lords, that not one shilling of the estates forfeited in the late rebellion was ever applied to the service of the public, but became the reward of fraudulence and venality.

This happened in the year 1731; in 1732 a scheme was formed by Sir Robert Walpole, for fixing a general excise. He introduced it by recounting the frauds practised by the factors in London, employed in selling the American tobacco. To prevent these frauds, he proposed, that, instead of having the customs levied in the usual manner upon tobacco, all hereafter to be imported should be lodged in warehouses appointed for that purpose by the officers of the crown; and should thence be sold, upon paying the duty of 4*d.* per pound, when the proprietor found a purchaser. This proposal raised such a violent ferment, both within doors and without, that the houses of parliament were surrounded by mobs, who intimidated the ministry, and compelled them to drop the design. The miscarriage of the bill was celebrated with public rejoicings in London and Westminster, where the minister was burnt in effigy. On this occasion an attempt was made to repeal the septennial bill. But, notwithstanding the warmth of the opposition, the ministry were victorious, and the motion was negatived. However, the country party on this occasion seemed to have gained strength, and it was thought proper to dissolve the parliament. In the new parliament, a convention agreed on by the ministry with Spain, became an object of warm altercation. By this the court of Spain agreed to pay £95,000 to the English, as a satisfaction for all demands; and to discharge the whole in four months from the day of ratification. This, however, was considered as not equivalent to the damages that had been sustained. The minister, on this occasion, was provoked into such unusual vehemence, that he branded the opposite party with the appellation of traitors; and the country party, finding themselves out-numbered and outvoted in every debate, resolved to withdraw. Walpole, being thus left without opposition, took the opportunity of passing some useful laws.

In 1739 a new war commenced with Spain. Ever since the treaty of Utrecht, the Spaniards in America had insulted and distressed the commerce of Great Britain; while the British merchants on the other hand had endeavoured to carry on an illicit trade in their dominions. As the right of cutting logwood in the bay of Campeachy, claimed by the British, gave them frequent opportunities of pushing in contraband commodities upon the continent, the Spaniards resolved to put a stop to the evil, by refusing them liberty to cut logwood in that place. The Spanish guarda-costas continued their severities upon the British, and many British subjects were sent to dig in the mines of Potosi. One remonstrance followed another to the court of Madrid; but the only answers given were promises of enquiry. War, therefore, was now declared; and soon after admiral Vernon, with six ships only, destroyed all the fortifications of Porto Bello, and came away victorious with scarcely the loss of a man. For a war thus successfully begun supplies were cheerfully granted. Commodore Anson was sent with a squadron of ships to distress the enemy in the South Seas, and to co-operate with Vernon across the isthmus of Darien. Through the mismanagement of the ministry, however, these schemes were frustrated. Anson was detained till too late in the season; he then set out with five ships of the line, a frigate, two storeships, and about 1400 men. Coming into the stormy South Seas at a

wrong season of the year, his fleet was dispersed, and his crew deplorably afflicted with the scurvy; so that with difficulty he gained the island of Juan Fernandez. Thence sailing along the coast of Chili, he plundered and burnt the town of Paita. He next traversed the Great Pacific Ocean, in hopes of meeting with one of the rich galleons that trade from the Philippine Islands to Mexico; and, having refreshed his men at the islands of Tinian, set forward for China. Returning the same way he came, he at last discovered and took the galleon, valued at £313,000, together with other captures to the value of about as much more. By this expedition the public sustained the loss of a fine squadron of ships, while a few individuals became possessed of immense fortunes. Another expedition to New Spain ended more unfortunately. It consisted of twenty-nine ships of the line, and almost an equal number of frigates, furnished with all kinds of warlike stores, nearly 15,000 seamen, and as many land forces. The most sanguine hopes of success were entertained; but the ministry detained the fleet, without any visible reason, till the season for action in America was almost over. At last, however, they arrived before the city of Carthagena, and became masters of the strong forts which defended the harbour. But, though by this means they advanced a good deal nearer the town, they found great difficulties before them. It was asserted, that the fleet could not lie near enough to batter the town, and therefore the remaining forts must be attempted by scalade. This dangerous experiment was tried; when the guides were cut off by the enemy's fire, and the forces mistook their way. Their scaling ladders were too short; and, at last, after sustaining a dreadful fire for some hours, they retreated, leaving 600 men dead on the spot. The terrors of the climate now began to be more dreadful than those of war. The rainy season commenced, and it was impossible for the troops to continue their encampment. To these calamities was added a dissension between the sea and land commanders, who blamed each other, and at last could be only brought to agree in one mortifying measure, viz. to re-embark the troops, and withdraw them. The miscarriage of this enterprise produced the greatest discontents; the commerce of Britain was greatly annoyed by the Spanish privateers, who had taken 407 ships, it was said, since the commencement of the war; while the British fleets seemed to be quite inactive, and to suffer one loss after another, without endeavouring to make reprisals. These discontents being visited at once upon Sir Robert Walpole; a majority of the house of commons was formed against him; he was created earl of Orford, and resigned all his employments.

The new ministry were no sooner in power, however, than they trod in the footsteps of those whom they had so much condemned. The nation had now become disgusted with naval operations. The people wished for a renewal of their victories in Flanders, and the king ardently joined in this desire. An army of 16,000 men was therefore embarked for Flanders, to take part in the contest then beginning on the continent. To trace the origin of this, it is necessary to go back for some years. The emperor Charles VI. dying October 20th, 1740, the French court had thought this a favorable opportunity for exerting its ambition. Regardless of treaties, therefore, particularly that called the Pragmatic Sanction, by which the late emperor's dominions were settled upon his daughter Maria Theresa, the elector of Bavaria was now crowned emperor. Thus the queen of Hungary was at once stripped of her inheritance, and left for a whole year deserted by all Europe. At the same time she lost the province of Silesia by an irruption of the young king of Prussia, who renewed his pretensions to that province, of which his ancestors had been unjustly deprived. France, Saxony, and Bavaria, attacked the rest of her dominions: Britain was the only ally that seemed willing to assist her; in which, however, Sardinia, Holland, and Russia, soon after concurred. It must be owned that Britain had no other reason for interfering in these disputes, than that the security of the electorate of Hanover depended upon nicely balancing the different interests of the empire; and the ministry were willing to gratify the king. His majesty informed the parliament, that he had sent a body of British forces into the Netherlands, which he had augmented by 16,000 Hanoverians, to make a diversion upon the dominions of France, in favor of the queen of Hungary. When the supplies came to be considered, by which this additional number of Hanoverian troops was to receive pay from Britain for defending their own cause, most violent debates ensued; but the ministry carried their point in parliament. They also effectually retrieved the queen of Hungary's desperate affairs. The French were driven out of Bohemia. Her general, prince Charles, at the head of a large army, invaded the dominions of Bavaria. Her rival, the nominal emperor, was obliged to fly before her; and being abandoned by his allies, and stripped even of his hereditary dominions, he retired to Frankfort, where he lived in obscurity. In the mean time, the British and Hanoverian army advanced, in order to effect a junction with that of prince Charles of Lorrain. To prevent this, the French opposed an army of 60,000 men, under the command of the marshal de Noailles, who posted his troops on the east side of that river. The British army was commanded by the earl of Stair, who had been educated under the great prince Eugene; nevertheless he suffered himself to be enclosed by the enemy on every side, near Dettingen. See DETTINGEN. In this situation, the whole army, with the king himself, who had by this time arrived in the camp, must have been taken, had the French behaved with prudence. Their impetuosity, however, saved our troops. They passed a defile, which they ought to have contented themselves with guarding; and, under the conduct of the duke of Grammont, their horse charged the British foot with great fury. Being received with equal resolution, they were at last obliged to repass the Mayne with precipitation, and the loss of about 5000 men. But, though the British were victorious in this engagement, the French were not disconcerted by it. They opposed prince Charles, and interrupted his attempts to pass the

Rhine. In Italy they also gained some advantages; but their chief hopes were placed on an intended invasion of England. From the violence of parliamentary disputes in England, France had been persuaded that the country was ripe for a revolution, and only wanted the presence of the pretender to bring about a change. An invasion was therefore projected. The troops destined for the expedition amounted to 15,000; and preparations were made for embarking them at Dunkirk, under the eye of the young pretender. The duke de Roquefuille, with twenty ships of the line, was to see them safely landed, and the famous count Saxe was to command them afterwards. But the whole project was disconcerted by the appearance of Sir John Norris, who attacked them with a superior fleet. The French fleet was obliged to put back, and a very hard gale of wind damaged their transports beyond redress. The national joy for Sir John Norris's success, however, was soon damped by the miscarriage of admirals Matthews and Lestock; who, through a misunderstanding between themselves, suffered a French fleet of thirty-three sail to escape them near Toulon. In the Netherlands the British arms were attended with still worse success. The French had there assembled an army of 120,000 men, commanded by count Saxe, natural son to the late king of Poland. The English were headed by the duke of Cumberland, who had an inferior army, and was very unequal in his knowledge of war to the French general. Count Saxe, therefore, carried all before him. In 1743 he besieged Fribourg, and in the beginning of the campaign, 1744, invested the strong city of Tournay. To save this place, if possible, the allies resolved to hazard an engagement; and on this ensued the bloody battle of Fontenoy, in which they left on the field of battle nearly 12,000 men, and the French almost an equal number. Tournay, in consequence of this victory, was soon after taken by the French. To balance this bad success, however, admirals Rowley and Warren had retrieved the honor of the British flag, and made several rich captures at sea. The fortress of Louisbourg, a place of great consequence to our commerce, surrendered to general Pepperell; while, a short time after, two French East India ships, and a Spanish ship from Peru laden with treasure, put into the harbour, supposing it still their own, and were taken.

During this appearance of returning success, Charles Edward, the son of James, the old pretender to the British crown, resolved to make an attempt to recover what he called his right. Being furnished with some money from France, he embarked for Scotland, on board a small frigate, accompanied by the marquis of Tullibardine, Sir Thomas Sheridan, and some others; and, for the conquest of the whole British empire, only brought with him seven officers and arms for 2000 men. Fortune, however, seemed at first not more favorable to this attempt than to the former. His convoy, a ship of sixty guns, was so disabled in an engagement with an English man of war, that it was obliged to return to Brest, while he continued his course to the western parts of Scotland. On the 27th of July, 1745, he landed on the coast of Lochaber, and was joined by the Highlanders to the number of 1500, before the ministry could be induced to credit his arrival. When they could no longer doubt it, they sent Sir John Cope with a small body of forces to oppose his progress. By this time the young adventurer was arrived at Perth, where he performed the ceremony of proclaiming his father king of Great Britain. From thence proceeding towards Edinburgh, with continually increasing forces, he entered the capital without opposition; but was unable, from want of cannon, to reduce the castle. Here he again proclaimed his father; and promised to dissolve the union. In the mean time Sir John Cope, being reinforced by two regiments of dragoons, resolved to give the rebels battle. They attacked him near Prestonpans, and in a few minutes put him and his troops to flight, with the loss of 500 men. Charles was now joined by the earl of Kilmarnock, lord Balmerino, lords Cromarty, Elcho, Ogilvy, Pitsligo, and the eldest son of lord Lovat, who with their vassals considerably augmented his army. Lord Lovat himself, so remarkable for his treachery, was an enthusiast in favor of the pretender, but was unwilling to act openly for fear of the ministry. While Charles trifled away his time, however, at Edinburgh, the British ministry were not idle; they took 6000 Dutch troops into their pay, and despatched them northward under the command of general Wade. The duke of Cumberland soon after arrived from Flanders, and was followed by another detachment of well disciplined dragoons and infantry; besides these, volunteers offered themselves to the government in every part of the kingdom. At last Charles resolved upon an irruption into England. He entered that country by the western border, and took Carlisle; after which he continued his march southwards, receiving assurances that a considerable body of forces would be landed on the southern coasts, to make a diversion in his favor. He established his head quarters at Manchester, where he was joined by about 200 English, formed into a regiment under the command of colonel Townley. Thence he pursued his extraordinary march to Derby, intending to go by the way of Chester into Wales, where he hoped to be joined by a great number of malcontents; but in this he was prevented by the factions of his followers. Being now advanced within 130 miles of London, that capital was in the utmost consternation; and, had he proceeded with the same expedition he had hitherto used, he might perhaps have made himself master of it. But the young pretender was in fact but the nominal leader of his forces; his generals, the Highland chiefs, being averse to subordination, and ignorant of command. They were now unanimous in their resolution to return, and Charles was forced to comply. Retreating towards Carlisle, therefore, without any loss; from thence they crossed the rivers Eden and Solway, and entered Scotland. They next marched to Glasgow, which they laid under severe contributions, and, now advancing to Stirling, were joined by lord Lewis Gordon, at the head of some forces which had been assembled in the pretender's

absence. Other clans also came in; and prince Charles's affairs altogether began to wear a promising aspect. He invested the castle of Stirling, and defeated general Hawle, who commanded a considerable body of forces near Falkirk, with the loss of their tents and artillery. This was the last triumph, however, of the rebel army. The duke of Cumberland arrived, and took the command of the royal troops at Edinburgh, which amounted to about 14,000 men. With these he advanced to Aberdeen, where he was joined by several of the nobility; the enemy in the mean time retreating before him. He next advanced to the banks of the Spey, where the rebels might have disputed his passage; but their contentions with one another were now risen to such a height, that they could scarcely agree in any thing. At last they resolved to await their pursuers; when an engagement ensued at Culloden, in which they were defeated with great slaughter (See CULLODEN), and a final period was put to all the hopes of the young adventurer. The conquerors behaved with the greatest cruelty, refusing quarter to the wounded, the unarmed, and the defenceless; some were slain who had only been spectators of the combat, and the king's soldiers anticipated the base employment of the executioner. The duke immediately after the action ordered thirty-six deserters to be executed: and, after a short space, the whole country round was one dreadful scene of plunder, slaughter, and desolation. Prince Charles, after a variety of surprising adventures and narrow escapes, notwithstanding the highest rewards were offered to apprehend him, arrived safely in France. Meantime the scaffolds and gibbets were erected for his adherents; seventeen officers were hanged, drawn, and quartered, at Kennington, in the neighbourhood of London; nine at Carlisle, and eleven at York. A few obtained pardons, and a considerable number were transported to America. The earls of Kilmarnock and Cromarty, and lord Balmerino, were tried and found guilty of high treason. Cromarty was pardoned: but Kilmarnock and Balmerino were executed; as was also Mr. Radcliffe, brother to the late earl of Derwentwater, who was sentenced upon a former conviction. Lord Lovat was tried, and suffered some time after.

Immediately after the suppression of the rebellion the legislature undertook to establish several regulations respecting Scotland, which were equally conducive to the happiness of the people and the tranquillity of the united kingdoms. The Highlanders had till this time continued to wear the military dress of their ancestors, and never went without arms. They considered themselves in consequence a body of people distinct from the rest of the nation, and were ready upon the shortest notice to second the insurrections of their chiefs. An act of legislature now compelled them to discontinue the national habit: but what contributed still more to their felicity was, the abolition of that hereditary jurisdiction which their chieftains exerted over them. Soon after the battle of Culloden the duke of Cumberland returned to Flanders, where he resumed the command of an army, to which he was by no means equal. The French carried every thing before them; and reduced under their dominion all those strong towns which had been taken by the duke of Marlborough, and formed a barrier to the United Provinces. They gained a considerable victory at Roucroux; which, however, cost them as many men as they destroyed of the enemy; but these they could easily spare. Another victory, which they obtained at La Feldt, served to depress the allied army still lower. But the taking of Bergen-op-Zoom, the strongest fortification of Brabant, reduced the Dutch to a state of desperation. These victories of the French in Flanders were, however, counterbalanced by almost equal disappointments. In Italy the marshal Belleisle's brother, attempting to penetrate at the head of 34,000 men into Piedmont, was defeated and killed. A fleet was fitted out for the recovery of Cape Breton, but without success. Two others were then fitted out, one to make a descent upon the British colonies in America, and the other to carry on the operations in the East Indies; but these were attacked by Anson and Warren, and nine of their ships taken. Not long after this, commodore Fox, with six ships of war, took above forty French ships richly laden from St. Domingo; and, soon after, the French fleet was defeated by admiral Hawke, who took seven ships of the line and several frigates. For a long time Louis XV. had been desirous of a general tranquillity; but now the ill success of his admirals at sea, and of his armies in Italy, the frequent bankruptcies of merchants at home, and the election of a stadtholder in Holland, who gave spirit to the opposition, contributed to make him weary of the war, and to propose terms of accommodation. A congress, therefore, was held at Aix-la-Chapelle, where a treaty of peace was concluded on the following terms: 1. That all prisoners on each side should be mutually given up, and all conquests restored. 2. That the duchies of Parma, Placentia, and Guastalla, should be ceded to Don Philip, heir apparent to the Spanish crown; after whom these dominions should return to the house of Austria. 3. That the fortifications of Dunkirk towards the sea should be demolished; and that the British ship annually sent with slaves to the coast of New Spain should have this privilege continued for four years. 4. That the king of Prussia should be confirmed in the possession of Silesia, and that the queen of Hungary should be secured in the possession of her patrimonial dominions. The most mortifying clause to this country was, that the king of Great Britain should, immediately after the ratification of the treaty, send two persons of rank to France as hostages, until restitution should be made of Cape Breton and all other British conquests made during the war.

In 1751 died Frederic prince of Wales, of a pleurisy. He was greatly regretted; for his good nature had rendered him popular; and those who opposed administration had grounded their hopes of redress upon his accession to the throne. Some time before this, viz. in 1749, a scheme was entered upon for encouraging those who had been discharged from the army or navy to be-

come settlers in Nova Scotia. On account of this cold and barren spot, the English and French renewed the war, which soon after spread with such terrible devastation over every part of the globe. The possession of this country was reckoned necessary to defend the English colonies to the north, and to preserve their superiority in the fisheries in that part of the world. The French, however, who had been long settled in the back parts, resolved to use every method to dispossess the new comers, and urged the Indians to begin hostilities. Another source of dispute also sprung up soon after, in the same part of the world. The French, pretending to have first discovered the mouth of the Mississippi, claimed the whole adjacent country towards New Mexico on the east, to the Apalachian Mountains. In order to assert their claims, they dispossessed several English settlers of their homes, and built such forts as would command the country. Negociations, and mutual accusations, first took place between the two powers; at length, in 1756, four operations were undertaken by the British in America at once. Colonel Monkton had orders to drive the French from their encroachments upon the province of Nova Scotia. General Johnson was sent against Crown Point; general Shirley against Niagara, to secure the forts on the river; and general Braddock against Fort du Quesne. In these expeditions, Monkton was successful; Johnson also was victorious, though he failed in taking the fort against which he was sent; Shirley was thought to have lost the season of operation by delay; and Braddock was defeated and killed. In return for this ill success, the British made reprisals at sea; so that the French navy was unable to recover itself during the continuance of the war.

Once more, at this period, the French renewed the threat of an invasion. Several bodies of troops were sent down to the coast opposite the British shores; and were instructed in the manner of embarking and relanding from flat-bottomed boats. The number of men thus trained amounted to 50,000. The British ministry were greatly alarmed. But when they applied to the Dutch for 6000 men, which they were by treaty obliged to furnish in case of an invasion, this supply was refused; the Dutch alleging that their treaty was to send the troops in case of an actual, not a threatened, invasion. Upon this, 10,000 Hessians and Hanoverians were brought over, which occasioned great discontent. The ministry were upbraided for such disgraceful condescension, as if the nation was unable to defend itself. The invasion, however, never took place; but a French army landed in Minorca, and invested the citadel of St. Philip, reckoned the strongest in Europe; but the garrison was weak, and no way fitted to stand a siege. To raise this siege, therefore, admiral Byng was despatched with a squadron of ten men of war. His orders were to relieve Minorca, or, at any rate, to throw a body of troops into the garrison. On arriving at the island, he considered this last too hazardous an undertaking. Soon after, a French fleet appeared nearly equal in force to his own; but the admiral resolved to act only upon the defensive. The French advanced; a slight engagement ensued with part of the English fleet; after which the enemy slowly sailed away, and another opportunity never occurred of coming to a close engagement. It was now resolved in a council of war to return to Gibraltar to refit, and that the relief of Minorca was impracticable. For this conduct Byng was brought home under arrest, tried, and sentenced to be shot. He suffered with the greatest resolution, after delivering a paper filled with protestations of his innocence, and was evidently a sacrifice to party. After the conquest of Minorca, the French declared that they would revenge all injuries they should sustain in their colonies, on the king of Britain's dominions in Germany. Upon this, the court of London, eager to preserve Hanover, entered into a treaty with Russia, by which it was stipulated, that a body of 50,000 Russians should be ready to act in the British service, in case Hanover should be invaded. For this the czarina was to receive £100,000 annually, to be paid in advance.

This treaty was opposed by the king of Prussia. He had long considered himself as guardian of the interests of Germany, and was therefore alarmed at a treaty which threatened to deluge the empire with an army of barbarians. Besides, he was already apprised of an agreement between the Austrians and Russians, by which the latter were to enter the empire and strip him of his late conquest of Silesia. He therefore declared that he would not suffer any foreign forces to enter the empire either as auxiliaries or principals. The king of Great Britain now therefore found himself obliged to drop his Russian connexion, and conclude a treaty with Prussia. As both monarchs wished only to prevent the invasion of Germany, they soon came to an agreement mutually to assist each other; and from this alliance a new combination took place among the European powers. Britain opposed France in America, Asia, and on the ocean. France attacked Hanover; which the king of Prussia undertook to protect, while Britain promised him troops and money to assist his operations. Austria had her eye on the dominions of Prussia, and drew the elector of Saxony into the same designs. In these views the Austrians were seconded by France, Sweden, and Russia, who had hopes of acquiring a settlement in the west of Europe. Thus the king of Prussia launched into the tumult of war, having only Great Britain for his ally, while the most potent states of Europe were his antagonists. The British ministry, in order to procure a diversion in his favor, planned an unsuccessful enterprise against the coast of France. It ended in seizing the little island of Aix, an easy and an useless conquest. By this miscarriage the ministry were so discouraged that they had thoughts of abandoning the king of Prussia to his fate; but success, which had long fled from the British arms, now dawned upon them from the east. For a particular account of the operations alluded to, see HINDOSTAN. Their conquests in the western world, too, were about this time equally splendid. An expedition was set on foot against Cape Breton, under general Amherst and admiral Boscawen; another, under general Abercromby,

against Crown Point and Ticonderago; and a third, under brigadier general Forbes, against Fort du Quesne. The fortress of Louisburg, which defended the island of Cape Breton, was very strong both by nature and art; the garrison was numerous, the commander vigilant, and every precaution had been taken to prevent a landing. But the activity of the British surmounted every obstacle; the place was surrendered by capitulation, and its fortifications were demolished. The expedition against Fort du Quesne was equally successful; but that against Crown Point once more miscarried. General Abercromby attacked the French in their entrenchments, was repulsed with great slaughter, and obliged to retire to his camp at Lake George. But, though in this respect the British arms were unsuccessful, yet, upon the whole, the campaign of 1758 was greatly in their favor. The taking of Fort du Quesne served to remove from their colonies the terror of the incursions of the Indians; while it interrupted that correspondence, along a chain of forts, with which the French had environed the British settlements in America. In 1759 it was also resolved to assault the French in several parts of their empire. General Amherst, with a body of 12,000 men, was commanded to attack Crown Point; General Wolfe was to undertake the siege of Quebec; while general Prideaux and Sir William Johnson were to attempt a French fort near the cataracts of Niagara. This last expedition was the first that succeeded. The siege was begun with vigor, and promised an easy conquest; but Prideaux was killed in the trenches by the bursting of a mortar, so that the whole command devolved on general Johnson. A body of French troops attempted to relieve it, but were defeated and dispersed; soon after which the garrison surrendered prisoners of war. On his arrival at the forts of Crown Point and Ticonderago, general Amherst found them deserted and destroyed. There now remained, therefore, but one decisive blow to reduce all North America under the British dominions; and this was the taking of Quebec, the capital of Canada. See QUEBEC. This expedition was commanded by admiral Saunders and general Wolfe. The enterprise was attended with difficulties which appeared insurmountable; but all were overcome by the conduct of Wolfe, and the bravery of his men. He engaged and put to flight the French under Montcalm; but, to the great regret of the nation, was killed in the action. The surrender of Quebec was the consequence of this victory, which was soon followed by the cession of all Canada. The following season, indeed, the French made a vigorous effort to recover the city; but the resolution of governor Murray, and the appearance of a British fleet under the command of lord Colvil, obliged them to abandon the enterprise. The whole province was soon after reduced by general Amherst, and it has since remained annexed to the British empire. About the same time the island of Guadaloupe was reduced by commodore More and general Hopson.

The British affairs in Germany had at the beginning of the war worn a very unfavorable aspect. The Hanoverians were commanded by the duke of Cumberland, who was greatly outnumbered by the enemy. He was driven beyond the Weser, the passage of which might have been disputed, but the French were suffered to pass it unmolested. The Hanoverians were driven from one part of the country to another, till at length they made a stand near Hastenbeck, where it was hoped the numbers of the enemy would have the least opportunity of being used to advantage. The Hanoverians, however, left the field to the French, after a faint resistance. Their enemies pursued, and the duke retired towards Stade. Here, unable either to escape or advance, he was compelled to sign a capitulation, by which the whole army laid down their arms, and were dispersed into different quarters of cantonment. By this remarkable capitulation, which was called the capitulation of Closter Seven, Hanover was obliged to submit quietly to the French, who were now determined to turn their arms against the king of Prussia. But soon after both sides began to complain that the treaty was not observed. The Hanoverians exclaimed against the rapacity of the French general and the brutality of his soldiers. The French, retorting the charge, accused them of insolence and insurrection; and, being sensible of their own superiority, resolved to bind them strictly to their terms of agreement. The Hanoverians only wished for a pretence to take arms, and a general to head them. Neither was long wanting. The oppressions of the tax-gatherers, whom the French had appointed, were considered as so severe, that the army rose to vindicate the freedom of their country, while Ferdinand, prince of Brunswick, put himself at their head. As soon as this was known in Britain large supplies were granted, both for the service of the king of Prussia and to enable the Hanoverian army to act vigorously in conjunction with him. A small body of British forces was sent over to join prince Ferdinand under the duke of Marlborough. After some inconsiderable successes at Crevelt, the duke of Marlborough dying, the command of the British forces devolved on lord George Sackville. A misunderstanding arose, however, between him and prince Ferdinand, which appeared at the battle of Minden that was shortly after fought. Lord George pretended that he did not understand the orders sent him by the prince, and of consequence did not obey them; and, although the allies gained the victory, it would have been more decisive had the British commander obeyed his orders. He was soon after recalled, tried by a court-martial, found guilty of disobedience, and declared incapable of serving in any military command. After this victory it was imagined that one reinforcement more, of British troops, would terminate the war in favor of the allies: and this was quickly sent. The British army in Germany was augmented to upwards of 30,000 men: and sanguine hopes of conquest were entertained. These hopes, however, were soon seen to be ill founded. The allies were defeated at Corbach; but retrieved their honor at Exdorf. A victory at Warbourgh followed shortly after, and another at Ziernberg: but they suffered a defeat at Compen; after which both sides re-

tired into winter quarters. On the 25th of October, 1760, king George II. died. He had risen at his usual hour, and observed to his attendants that, as the weather was fine, he would take a walk in the gardens of Kensington, where he then resided. In a few minutes after, being left alone, he was heard to fall down upon the floor; and, the noise bringing his attendants into the room, he desired, with a faint voice, that the princess Amelia might be sent for; but, before she could reach the apartment, he expired, in the seventy-seventh year of his age, and thirty-third of his reign. An attempt was made to bleed him, but without effect; and the surgeons afterwards, upon opening him, discovered that the right ventricle of the heart was ruptured, and a great quantity of blood discharged through the aperture.

6. *Great Britain under the reign of George III. until the revolt of the American Colonies.*—Our late excellent sovereign, George III., ascended the throne amidst the greatest successes both by sea and land. At this time, indeed, the efforts of Britain, in every quarter of the globe, were truly astonishing. The king of Prussia received a subsidy; a large body of English forces commanded the extensive peninsula of India; another army of 20,000 men confirmed their conquests in North America; 30,000 men were employed in Germany; and many more were dispersed in garrisons in different parts of the world: but all this was surpassed by the good fortune of our naval force, which carried command wherever it came, and had totally annihilated the French maritime power.

When the young king met his parliament, which was opened November 18th, 1760, he confirmed the hopes of his allies, and gave assurances of his intentions to prosecute the war with vigor. By this time, however, the people were in some measure weary of conquests in Germany, from which they could never hope for any solid advantage. For some time, however, no change took place in the method of carrying on the war. But in 1761, proposals of peace being made between the belligerent powers, Mr. Stanley was sent to Paris to negociate a peace, and Mr. Bussey to London; but the French court, hoping to draw Spain into a confederacy, was not sincere in its professions, and the treaty came to nothing. An enterprise was projected at this time against the island of Belle-isle, near the coast of France, which was conducted by commodore Keppel and general Hodgson. See Belle-Isle. The place was taken, with the loss of 1800 men killed and wounded; and, though it was a conquest of no great moment, the rejoicings on account of it were great. In Germany the campaign was unsuccessful on the part of the allies. At first, indeed, they drove the French out of the territory of Hesse, and laid siege to the city of Cassel; but, being defeated at Stangerod, they were forced to raise the siege, retire behind the Dymel, and again abandon Hesse. Here they were followed and attacked by the French; who, though defeated in that attempt, were with difficulty prevented from making themselves masters of Munster and Brunswick. All this time an appearance of negociation had been carried on; until the French, at last, having brought their designs with the court of Spain to an issue, Mr. Bussey delivered to Mr. Pitt a memorial, signifying that, in order to establish the peace on a lasting foundation, the king of Spain might be induced to guarantee the treaty: and, to prevent the differences which then subsisted between Britain and Spain from producing a fresh war in Europe, he proposed that, in this negociation, the three points which had been disputed between the crowns of England and Spain might be finally settled:—1. The restitution of some captures made upon the Spanish flag; 2. The privilege of the Spanish nation to fish upon the banks of Newfoundland; 3. The demolition of the English settlements made in the bay of Honduras. Mr. Pitt in reply, however, declared that it would be considered as an affront to the dignity of his master, and incompatible with the sincerity of negociation, to make any farther mention of such a proposal; and, being now thoroughly convinced of the sinister designs of Spain, he proposed immediately to declare war against that kingdom. On this proposal being rejected, he resigned: after which he was created earl of Chatham, and had a pension of £3000 per annum settled upon him for three lives.

Soon after this, however, the new administration found it necessary to declare war against Spain. This involved our ally, Portugal; the French and Spaniards resolving to attack that kingdom, which was then in no capacity to defend itself. Joseph, the Portuguese monarch, was, by the most haughty memorials, commanded to accede to the confederacy against Britain, and threatened with the vengeance of France and Spain in case of refusal. In vain he promised to observe a strict neutrality, and urged the obligations he was under to the king of Britain; this moderate and reasonable reply only drew on more haughty and insulting answers. This prince, however, continued to reject their proposals in the most resolute manner; and concluded his final declaration by observing that 'it would affect him less, though reduced to the last extremity, of which the great Judge is the sole arbiter, to let the last tile of his palace fall, and to see his faithful subjects spill the last drop of their blood, than to sacrifice the honor of his crown, and to submit, by such extraordinary means, to become an unheard of example to all pacific powers.' As the design of the courts of France and Spain, in making war with Portugal, was professedly to deprive Great Britain of the military and commercial use of the ports of that kingdom, their principal efforts were directed against the two great ports of Oporto and Lisbon. With this view three inroads were made into that country, one to the north, another more to the south, and the third in the middle provinces. The first body of troops was commanded by the marquis of Savria; and entered the north-east angle of Portugal, marching towards Miranda; where, a powder-magazine having been blown up by accident, the Spaniards entered on the 9th of May by the breaches made by the explosion. Thence they marched to Braganza, which surrendered six days after Miranda. Moncorvo was taken in like manner:

every thing was clear before them to the banks of the Douro; and they became masters of almost the whole extensive province of Tralos Montes. Oporto was now considered as lost, and the admiralty prepared transports to carry off the effects of the British merchants. On the banks of the Douro, however, the career of the enemy was stopped. The peasants, animated and guided by some British officers, seized a difficult pass, and drove the enemy back to Moncorvo. The second body of Spaniards entered the province of Beira, at the villages called Val de Mulo and Val de Coelha, and laid siege to Almeida, the strongest and best provided place on the frontiers of Portugal. This place was defended with sufficient resolution; but was obliged to surrender on the 25th of August. The Spaniards then over-ran the whole territory of Castel Branco, a principal district of Beira, making their way southward to the banks of the Tagus. During their whole progress, and indeed during the whole of the campaign, the allied troops of Great Britain and Portugal had nothing that could be called an army in the field. All that could be done was by the defence of passes, and skirmishes. The third Spanish army had assembled on the frontiers of Estremadura, with a design to invade the province of Alentejo. To prevent this, brigadier general Burgoyne was despatched to attack an advanced body on the frontiers, in the town of Valentia de Alcantara. On the 27th of August the town was surprised; the Spanish general taken, who was intended to command in the invasion, together with one colonel, two captains, and seventeen subaltern officers; one of the best regiments in the Spanish service was also entirely destroyed. Colonel Lee harassed their subsequent attempts in this directions: until, the season being far advanced, immense quantities of rain fell; the roads were destroyed, and the Spaniards, having seized no advanced posts, where they could maintain themselves, and being unprovided with magazines, every where fell back into Spain.

No less successful were the British arms in America and the East Indies. From the French were taken the islands of Martinico, St. Lucia, St. Vincent, and Granada; from the Spaniards the strong fortress of Havannah, in Cuba. By the acquisition of the first mentioned islands, the British became the sole and undisturbed possessors of all the Carribees; and that chain of innumerable islands which extend from the eastern point of Hispaniola to the continent of South America. The conquest of the Havannah cost a number of brave men, but more were destroyed by the climate than the enemy. Nine of the enemy's men of war, with four frigates, were taken here; three of their capital ships were sunk in the harbour at the beginning of the siege, and two more on the stocks, in great forwardness, were destroyed. In money and valuable merchandise, the plunder did not fall short of £3,000,000 sterling. To this success in the western part of the world may be added the capture of the Spanish register-ship, called Hermione, supposed to be worth £1,000,000 sterling, by the Active and Favorite, king's ships. This happened on the 21st of May, 1762, just as she was entering one of the ports of Old Spain. In the East Indies an expedition was undertaken against the Philippine Islands, which was committed to colonel Draper, who arrived for this purpose at Madras in the end of June 1762. The seventy-ninth regiment was the only regular corps that could be spared for this service. Every thing was conducted with the greatest celerity and judgment. The British forces landed on Manilla on the 24th of Sept.; on the 6th of October the governor surrendered at discretion; and soon after the galleon bound from Manilla to Acapulco, laden with rich merchandise to the value of more than half a million, was taken by the Argo and Panther frigates. By the conquest of Manilla, fourteen considerable islands fell into the hands of the British; which, from their extent, fertility, and convenience of commerce, furnished the materials of a great kingdom. By this acquisition, also, joined to our former successes, we secured all the avenues of the Spanish trade, and interrupted all communication between the parts of their vast but unconnected empire. The conquest of the Havannah had cut off in a great measure the intercourse of their wealthy continental colonies with Europe: the reduction of the Philippines excluded them from Asia; while the plunder taken was far more than sufficient to indemnify the charges of the expeditions. All this time the war in Germany had been prosecuted with the utmost vigor; the allies under prince Ferdinand had continued to give the highest proofs of their valor, but no decisive advantage could be obtained against the French. It was, therefore, no longer the interest of Britain to continue a destructive war; and the French and Spaniards were desirous of a peace which was at length concluded at Paris on the 10th of February, 1763. The terms granted the enemy were but too favorable. The principal were, That the French king should relinquish all claims to Nova Scotia; that he should likewise give up all Canada; and that, for the future, the boundary betwixt the British and French dominions in America should be fixed by a line drawn along the middle of the river Mississippi, from its source to the river Ibberville; and thence by a line along the middle of this river, and the lakes Manrepas and Pontchartrain, to the sea. The islands of St. Pierre, Miquelon, Martinico, Guadaloupe, Marigalante, Desirade, St. Lucia, and Belle-isle, were restored to France; Minorca, Granada, and the Grenadines, St. Vincent, Dominica, and Tobago, were ceded to Britain. In Africa, the island of Goree was restored to France; and the river Senegal, with all its forts and dependencies ceded to Great Britain. In the East Indies, all the forts and factories taken from the French were restored. In Europe, the fortifications of Dunkirk were to be destroyed; and all the countries, fortresses, &c., belonging to the elector of Hanover, the duke of Brunswick, and the count of La Lippe Buckeburg, restored. With regard to Spain, the British fortifications on the Bay of Honduras were to be demolished; and the Spaniards were to desist from their claim of a right to fish on the Newfoundland bank. The Havannah was restored; in consequence of which, Florida, St.

Augustine, and the bay of Pensacola, were ceded to Britain, and the Spaniards were to make peace with Portugal; all other countries not particularly mentioned were to be restored to their respective owners at the beginning of the war.

The conclusion of the war did not by any means tend to heal those domestic divisions, which had arisen on the resignation of Mr. Pitt; on the contrary, it furnished abundant matter of complaint for the discontented party. At the time the treaty was under consideration, however, only some faint attempts were made to oppose it; but it soon appeared, that, though this opposition had proved so feeble, the spirit of the party was far from being exhausted. The state of affairs at that time indeed greatly favored the views of those who opposed the ministry. A long and expensive war had drained the national treasure, and greatly increased the public debt. Heavy taxes had already been imposed, and it was still as necessary to keep up these, and even to impose new ones, as if the war had not ceased. Thus the bulk of the nation, who imagined that conquest and riches ought to go hand in hand, were easily induced to believe that administration arbitrary and oppressive, which continued to load them with fresh taxes, after such great successes as had attended the British arms. It must be owned, that the new administration were not sufficiently wary in this respect. Among other methods of raising the supplies for 1763, they had thought proper to lay a duty of 4*s*. per hogshead upon cyder, payable by the maker, and to be collected in the same manner as other excise imposts. The other articles of supply furnished also matter of declamation for the members in opposition; but this inflamed the popular fury to a great degree, and made them readily imbibe as truth whatever was thrown out by the minority. Besides the usual statements, that it was oppressive, unconstitutional, and injurious to the land-holder and farmer, the smallness of the sum to be raised by it was now urged. This was said to indicate, that the supplying the wants of government could not be the sole motive for imposing such a duty. The city of London, therefore, instructed their representatives to oppose the passing of the bill with all possible vigor, and sent in petitions against it to each branch of the legislature; a measure till that time totally unprecedented: two protests were also entered against it in the house of lords; in short, all England was thrown into a ferment on the subject. Virulent libels, the audacity of which far exceeded any thing known in former times, now made their appearance: and such was the general intemperance in this respect, that it would be difficult to determine which side paid least regard to any kind of decency or decorum. In the midst of this general ferment, the earl of Bute unexpectedly resigned his place of first lord of the treasury.

The popular resentment against government was not, however, in the least abated by lord Bute's resignation. His lordship, though withdrawn from the ostensible administration of affairs, was still considered as principal director of the cabinet; and this opinion gained the more ground, as none of the popular leaders were admitted, nor any other change made in the conduct of administration. Not that moderate men could find any reasonable objection to those who filled the great offices of state. Mr. Grenville, who succeeded the earl of Bute in the treasury, was a man of acknowledged integrity, understanding, and experience. Lord Holland was universally considered as an able statesman, and lord Egremont, the third secretary, though he had not been long in office, conciliated the esteem of all parties. The other departments were filled in a similar manner; yet the discontents and public clamors were not diminished. It was still insisted that a secret cabinet of the king's friends, as they were called, controlled every thing: and that, according to the spirit of the constitution, the crown should be directed in the choice of its ministers by motives of national utility, not by private friendship. When ministers found themselves recommended to the royal favor, and as it were presented to their places by the esteem of the people, they would be studious, it was said, to deserve and secure themselves in it; and that upon these (which were called the principles of whigs) the government had been honorably conducted since the revolution. The disposition to libel and invective, in the mean time, exceeded all bounds. The peace, the Scots and Scottified administration, afforded such subjects of abuse to the patriots, real and pretended, that ministry resolved at last to make an example of one of them. The paper called the North Briton, in language much superior to any other political work of the time, except Junius's Letters, had abused the king, the ministry, and the Scots in an extravagant manner. One particular paper, No. XLV., was deemed by those in power to be actionable, and John Wilkes, Esq. M. P. for Aylesbury, was supposed to be the author. A secretary of state's warrant was therefore issued for apprehending the author, publishers, &c., of this performance, but without mentioning Wilkes's name. Three messengers accordingly entered his house on the night of the 29th of April, 1763, with an intention to seize him. He objected, however, to the legality of the warrant, because his name was not mentioned in it, and to the lateness of the hour; and they thought proper to retire for the night. Next morning he was apprehended with some violence, and taken before the secretaries of state for examination. On the first intimation of Mr. Wilkes's being in custody, application was made for a writ of habeas corpus. In the interim his papers were seized, and, after it was ascertained that the writ was obtained, he was committed to the tower. Here not only his friends, but several noblemen and gentlemen of the first distinction, were denied access; nor was even his own brother allowed to see him. On the 3d of May he was brought before the court of common pleas, where he made a most patriotic speech, setting forth the love he had for his majesty, the bad conduct of ministry, with his own particular grievances; and that he had been treated 'worse than a Scotch rebel.' His case being argued by several eminent lawyers, he was remanded to the tower for three days; after which he was ordered to be finally brought up. Next day lord Temple re-

ceived a letter from secretary Egremont, informing him, that the king judged it improper that Mr. Wilkes should continue any longer a colonel of the Buckinghamshire militia; and, soon after, that nobleman was removed from the lord lieutenancy of that county. Mr. Wilkes being brought to Westminster Hall, at the time appointed, the judges decided that the warrant of a secretary of state was in no respect superior to that of a common justice of peace; and, on the whole, that Mr. Wilkes's commitment was illegal. It was determined, also, that his privilege as member of parliament had been infringed, and that this could not be forfeited but by treason, felony, or breach of the peace; none of which was imputed to him; for a libel, even if it had been proved, had only a tendency to disturb the peace, without any actual breach of it. It was resolved, therefore, to discharge him. Mr. Wilkes had no sooner regained his freedom than he wrote and printed a letter to the earls of Egremont and Halifax, informing them that his house had been robbed, and that the stolen goods he understood were in the possession of one or both of their lordships. He erected a printing press in his own house; from whence the North Briton again made its appearance; the popular party were elated beyond measure with their success; while those who had suffered by general warrants sought redress at law, and commonly obtained damages far beyond their real sufferings. During the whole summer the minds of the people were kept in continual agitation by political pamphlets and libels of various kinds, while the affair of general warrants so engrossed the public attention, that by the time parliament met, November 15th 1763, scarcely any other subject was agitated.

His majesty, in his speech, mentioned the attempts that had been made to divide the people; and, before the addresses could be made in return, a message was sent to the commons, informing them of the offence of Mr. Wilkes, and of the proceedings taken against him; the exceptionable paper being laid before the house. After warm debates, the North Briton was declared to be a false, scandalous, and seditious libel, tending to excite traiterous insurrections, &c. This was followed by another declaration, that the privilege of parliament does not extend to the writing and publishing of seditious libels, nor ought to obstruct the ordinary course of the laws in the speedy and effectual prosecution of so heinous and dangerous an offence. This did not, however, pass the commons without a vigorous opposition, and seventeen members of the upper house protested against it. The North Briton, No. XLV., being thus condemned, was ordered to be burnt by the common hangman; but this was not attempted without great opposition from the mob. The constables, officers, &c., were pelted and insulted in the grossest manner. Mr. Harley, one of the sheriffs, was wounded by a billet taken from the fire; and the whole civil force driven from the field, while the remains of the paper were carried off in triumph from the flames, and in return a large jack boot as a species of effigy of lord Bute) was burnt at Temple Bar. Mr. Wilkes in the mean time commenced an action in the court of common pleas against Robert Wood, Esq., the under secretary of state, for seizing his papers, and Wood was condemned in £1000 damages and costs. On the other hand the prosecution, with which Wilkes had been threatened, was now carried on with great vigor; but he having now grossly affronted Samuel Martin, Esq., member for Camelford, by his abusive language in the North Briton, he was challenged by that gentleman, and dangerously wounded in the abdomen. The house of commons delayed their proceedings therefore from time to time; but, beginning at last to suspect that there was some collusion between him and his physician, they enjoined Dr. Heberden, and Mr. Hawkins an eminent surgeon, to attend him, and report upon his case. These gentlemen Mr. Wilkes did not think proper to admit to visit him; but soon after retired to France. On this the commons, having certified that he had refused to admit the physician and surgeon sent by them, proceeded to expel him from their house, and the lords resolved that he had committed a breach of their privileges in an obscure and blasphemous pamphlet, in which he had libelled one of the bishops. The event of all was, that, failing to appear to answer the charges against him, he was outlawed. This severity, however, against Mr. Wilkes did not at all extinguish the spirit of the party. A sort of infatuation in favor of licentious and abusive writings seemed to prevail. The common council of London presented their thanks to the city representatives, for their zealous and spirited endeavours to assert the rights and liberties of the subject, 'by their laudable attempt to obtain a seasonable and parliamentary declaration, that a general warrant for apprehending and seizing the authors, printers, and publishers of a seditious libel, together with their papers, is not warranted by law;' and evinced their gratitude to lord chief justice Pratt, for his decision in Wilkes's affair, by presenting him with the freedom of the city, and desiring him to sit for his picture to be placed in their Guildhall.

The public business, however, at last gained attention. The practice of franking blank covers, to go free per post to any part of Great Britain or Ireland, had arisen to an incredible height, and greatly prejudiced the revenue. As a remedy for this the following act was passed, viz. That from the 1st of May 1764 no letters or packets should be exempted from postage, except such as were sent to or from the king; or such as, not exceeding two ounces in weight, should be signed by a member of either house, the whole of the superscription being in his own hand writing; or such as should be directed to members of parliament, or other persons specified in the act. It was likewise enacted, that printed votes and proceedings in parliament, sent without covers, or in covers open at the sides, and only signed on the outside by a member, should go free, though such packets were liable to be searched; and, to give the greater force to these regulations, it was made felony and transportation for seven years to forge a frank

Other plans for augmenting the revenue were that for settling the island of St John, and for the sale of the lately acquired American Islands. The former was proposed by the earl of Egremont, who presented a memorial to his majesty, desiring a grant of the whole island, to hold the same in fee of the crown for ever; specifying the various divisions, government, &c., but, for reasons unknown, the plan was never put in execution. The sale of the conquered lands took place in March 1764. These were Grenada, the Grenadines, Dominica, St. Vincent, and Tobago. Sixpence an acre was to be paid as a quit rent for cleared lands; a penny a foot for ground rent of tenements in towns; and sixpence an acre for fields; but no person was to purchase more than 300 acres in Dominica, or 500 in the other islands. One of the most remarkable transactions of this year was the renewal of the charter of the bank, for which the latter paid the sum of £1,100,000 into the exchequer, besides advancing £1,000,000 to government upon exchequer bills.

Another, and, by its consequences, still more momentous affair, was the consideration of methods to raise a revenue from the American colonies. This had been formerly proposed to Sir Robert Walpole; but that prudent minister said 'he would leave the taxation of the colonies to those who came after him.' Before this time, indeed, hints had been thrown out, that it was not impossible for the colonists to withdraw their dependence on Great Britain: and some disputes had taken place between the different provinces, which were quieted only by the fear of the French. It was thought proper, therefore, now, when the colonies were not only secured but extended, to make this important experiment. They contained more than 2,000,000 of subjects; and it was considered by the ministry, as well as the vast majority of the nation at home, both just and necessary to raise a revenue from such a numerous portion of the people. In an act therefore, which was now passed for preventing smuggling, certain duties laid on the American commerce were ordered to be paid into the hands of government. At this time an illicit trade was carried on betwixt the British and Spanish colonies, which seemed to bid defiance to all law and regulation; and was no less disagreeable to the Spanish than to the British court. In some respects, however, the suppression of this was very inconvenient, and even intolerable to the colonists; for, as the balance of trade with Britain was against them, it was impossible they could procure any specie, except by trading with the Spaniards, from whom they were paid for their goods in gold and silver. This, and another act requiring them to pay certain duties in cash, was probably the reason of that excessive resentment shown by the Americans to government, and their absolute refusal to submit to the stamp act, which was also passed this year.

The increase of the revenue being a chief object of administration at this time, the suppression of smuggling at home, as well as in America, was taken into consideration. Though the great number of cutters and other vessels fitted out by government for this purpose had produced very salutary effects, the isle of Man, which belonged to the duke of Athol, and was not subject to the custom-house laws, lay so conveniently for the purposes of illicit trade, that the utmost vigilance of government was not sufficient to suppress it. The event was a treaty betwixt government and the duke, by which the latter, for a sum of money, ceded the sovereignty of the island. This disposition to augment the revenue by all possible methods, served to keep up the general opinion of the oppressive and arbitrary measures about to be pursued by government; the opposition of the so-called patriots at home still continued; and the stamp bills were received in America with the utmost indignation. At this time the colonists were indebted to the merchants of London alone, £4,000,000 sterling; and so ready were the latter to give them credit, that some of the American legislatures passed acts against incurring such credit in this country. A petition on the subject was presented to the house of commons; but, as it denied the parliamentary right of taxation, it was not allowed to be read. It was then proposed, on the part of administration, that the agents should join in a petition to the house for their being heard by counsel in behalf of their respective colonies against the tax. The agents, however, not thinking themselves empowered to present such a petition, the negociation was broken off, and the quarrel proceeded in AMERICA as we have related under that article. In other respects, the ministry took such steps as were proper for supporting the honor of the nation. Some encroachments having been made by the French and Spaniards, such remonstrances were made to their respective courts, that satisfaction was quickly offered. The disposition to tumult and insurrection, however, seems to have been now general. The silk-weavers of Spitalfields being distressed for want of employment, which they supposed to proceed from the clandestine importation of French silks, laid their case before his majesty in 1764, who graciously promised them relief. But a bill, which was supposed favorable to them, being thrown out of parliament, they began to assemble in vast numbers, several disorders were committed, and it was not without the assistance of the soldiery, and the utmost vigilance of the magistrates, that riots could be suppressed. The ministers were still attacked in numberless publications, and accused as being merely dependents on the earl of Bute. An accident, however, now produced a considerable revolution at court. This was an illness with which the king was seized in the beginning of the year, which gave rise to a bill for settling the affairs of the kingdom, in case of the crown falling into the hands of a minor. In settling this bill, ministers were said to have behaved with very little respect to the princess dowager of Wales, and industriously to have excluded her from a share of the government.

On this occasion lord Chatham is said to have been solicited again to accept the office which he had formerly filled so much to the satisfaction of the nation, and to have declined it. A new ministry, however, was soon formed, at the recomendation of the duke of Cumberland. The

duke of Grafton and the honorable Mr. Conway, brother to the earl of Hertford, were appointed secretaries of state, and the marquis of Rockingham first lord of the treasury. The office of lord privy seal was conferred on the duke of Newcastle; other places were filled with men not only of known integrity, but high popularity. Yet even these changes were not able to give satisfaction. The opinion that affairs were still managed by the earl of Bute, was industriously kept up by the political writers of the time. In the mean while the discontents, which inflamed the American colonies, continued also to agitate the minds of the people of Great Britain; nor indeed was it reasonable to expect that they could be satisfied in their present condition; commerce being almost entirely destroyed, manufactures at a stand, and provisions extravagantly dear. The vast sums owing to the British merchants by the Americans also severely affected the trading and manufacturing part of the country. These, amounting to several millions, the colonists absolutely refused to pay, until the obnoxious laws should be repealed. Administration were therefore under the necessity of either instantly enforcing the stamp act, or of procuring its immediate repeal in parliament. The loss of the duke of Cumberland, who died suddenly 31st October 1765, was now severely felt, as he had been accustomed to assist in the councils of administration, and was highly respected by the nation. At this period, however, it is doubtful if human wisdom could have prevented the consequences which ensued. Administration endeavoured to avoid the two extremes of rushing into a civil war, on the one hand, and of sacrificing the dignity of the crown or nation on the other. They suspended their opinion until they should receive certain intelligence from the American governors how affairs stood in that country; and their letters on that occasion still do them honor. The opposite party animadverted severely on this conduct. They insisted on having the most coercive methods immediately put in execution for enforcing the laws. Pacific measures, however, at this time prevailed; the stamp act was repealed; but at the same time another was passed, declaring the right of parliament not only to tax the colonies, but to bind them in all cases whatever.

The repeal of the stamp act occasioned universal joy both in Britain and America, though, as parliament insisted upon their right of taxation which the opposite party denied, matters were still far from any real accommodation. This ill humor of the Americans was soon after augmented by the duties laid upon glass, painters' colors, and tea. In this state of affairs, administration were once more disturbed by the appearance of Mr. Wilkes, who had returned from his exile, and on the dissolution of parliament in 1768, though an outlaw, he stood candidate for the city of London. He was received by the populace with loud acclamations; several merchants and people of property espoused his cause: and a subscription was entered into for the payment of his debts. He failed, however, in his design of representing the city of London, but instantly declared himself a candidate for Middlesex. The tumults and riots which now took place were innumerable; and such was the animosity betwixt the two parties, that a civil war seemed to be threatened. Our limits do not allow of a particular detail of these transactions. It will be sufficient to notice, that, on a legal argument, the outlawry of Mr Wilkes was reversed, and he was condemned for his offences to pay a fine of £1000, and to be imprisoned for twelve months. Being idolized by the people, however, and powerfully supported, he was repeatedly chosen member for Middlesex, and as often rejected by the house of commons. The tumults on this occasion were not always ended without bloodshed; and the frequently interposition of the soldiery was construed by the patriots as an indication of a design to establish military authority.

These dissensions did not pass unnoticed by the powers of Europe, particularly the French and Spaniards. Both had applied themselves with assiduity to the increase of their marine; and many began to prognosticate an attack from one or other, or both of these nations. The Spaniards first showed an inclination to come to a rupture; the subject in dispute being a settlement formed on Falkland Islands, near the southern extremity of the American continent. It was not till after lord Anson's voyage, that much attention had been paid to this spot. In the printed account of it, his lordship showed the danger incurred by our navigators through the treachery of the Portuguese in Brasil; and that it was a matter of the greatest importance to discover some place more to the southward, where ships might be supplied with necessaries for their voyage round Cape Horn. When at the head of the admiralty, he forwarded the scheme of a settlement here, and some preparations were made for putting it in execution; but as it met with opposition at home, and gave offence to the court of Madrid, it was laid aside till 1764, when it was revived by lord Egmont. Commodore Byron, being then sent out with proper necessaries, took possession of these islands in the name of his majesty, and represented them in a favorable light: while his successor, captain M'Bride, affirmed that the soil was utterly incapable of cultivation, and the climate intolerable. The islands in question had also about this time attracted the notice of the French; and M. Bougainville, with the assistance of his friends, undertook to form a settlement there at their own risk. The scheme was put in execution at the beginning of 1764; on the east part of the same island on the west side of which commodore Byron had established an English colony. Two years afterwards, the French adventurers becoming weary of their colony, the Spaniards reimbursed them their expenses, took possession of the fort built by the French, and changed the name of the harbour from Port Louis to Port Solidad. It is uncertain when the British and Spanish settlers became known to each other. But about this time captain Hunt, commanding the Tamar frigate, charged the commander of a Spanish schooner to depart from that coast, it being the property of his Britannic majesty. On the other hand, and to resent this interference as it was thought, a Spanish frigate arrived on the 4th June 1770, at the English settlement of Port Egmont, and after

threatening a siege, took possession of the colony. The English were ordered to depart within a limited time, carrying with them what they could. An insult to the British flag, so audacious, seemed to render war inevitable, unless proper reparation was made. It was accordingly mentioned in the speech from the throne, November 13th, 1770; and immediate satisfaction for the injury was promised to be demanded. The affairs of America were also taken notice of, where grounds of complaint still existed, notwithstanding the cessation of those combinations which had distressed the commerce of Britain These promises, with regard to the affairs of Falkland Islands, however, were far from giving general satisfaction. The speech was violently attacked by opposition. News had arrived, they said, from Falkland Islands in June, which sufficiently demonstrated the designs of Spain; and Gibraltar and Minorca were left open to the attacks of that power, without any preparation being made on our part to resist them. The whole conduct of the ministry was declared to be pusillanimous; and great disputes arose respecting the production of papers and the degree to which they were bound to acquaint parliament with verbal negociations: it being suspected that France had insidiously interfered in this question.

Opposition insisted that they had a right to have an account of verbal negociations as well as others; and that, if this right was given up, a minister had no more to do, when he wished to promote an insidious measure, than to conduct it by verbal correspondence. The motion, however, was lost by a great majority in both houses. The entire transaction, however, was considered as disgraceful to the British nation: nor were all the arguments that could be used by the ministerial party, aided by the pen of Dr. Samuel Johnson, in any degree sufficient to overthrow the general opinion. The restitution of the island was thought to be an inadequate recompense for the affront that had been offered; and the objections to it were urged on a motion for an address to return thanks for the communication of the Spanish declaration. This address was not carried without considerable difficulty, and produced a protest from nineteen peers. On the part of Spain, however, every part of the agreement was ostensibly fulfilled; Port Egmont was restored, and the British once more took possession of it, though it was in a short time after evacuated, according to a private agreement, as was suspected, between ministry and the court of Spain.

The discontents which prevailed at that time throughout the kingdom, were increased by a fire which happened at Portsmouth in 1770, and was by some imputed to our enemies on the continent. The affair of the Middlesex election also was not forgotten; and, notwithstanding repeated repulses, the city of London presented new petitions on the subject to the throne. In one presented by Mr. Beckford, the lord mayor, they lamented the heavy displeasure under which they seemed to have fallen with his majesty, and renewed a petition, frequently before presented, that parliament might be dissolved. This, however, met with a very unfavorable answer; his majesty informed the lord mayor that his sentiments on that subject continued unchanged; and that 'he should ill deserve the title of Father of his People, should he suffer himself to be prevailed on to make such a use of his prerogative, as he could not but think inconsistent with the interest, and dangerous to the constitution, of the kingdom.' Mr. Beckford, on this, took the unprecedented resolution of replying to the king; and concluded with telling his majesty, that 'whoever had already dared, or should hereafter endeavour, by false insinuations and suggestions, to alienate his majesty's affections from his loyal subjects in general, and the city of London in particular, was an enemy to his majesty's person and family, a violator of the public peace, and a betrayer of our happy constitution as it was established at the glorious revolution.' This notable scheme for insulting the institutions of the country, in the person of the chief magistrate, while it obtained Beckford unbounded popularity at the time, has been since claimed and acknowledged as Mr. John Horne Tooke's.

A new subject of contention, however, now occurred. The navy was in a bad condition, and the sailors every where avoided the service. Towards the end of August sixteen ships of the line were ready to put to sea; but, the legality of press warrants being questioned, the manning of them became a matter of great difficulty: for the new lord mayor, Brass Crosby, Esq., refused to back the warrants. Ministers were further perplexed by the unbounded liberty to which the productions of the press had been carried, and the mode of proceeding against some libellers had produced many complaints respecting the powers of the attorney-general. He had filed informations, and carried on prosecutions, ex officio, without going through the forms observed in other cases.—This, it was said by the patriotic party, was inconsistent with the nature of a free government. No power can be more dangerous to private liberty, nor to the virtue or principles of him who enjoys it. The attorney acts under a minister, and his sense of duty must be very strong, or his independence very thoroughly secured, if he is at no time tempted to swerve from the laws of conscience and equity. A motion was made in the house of commons to bring in a bill for explaining and amending an act of the 4th and 5th of William and Mary to prevent invidious informations, and for the more easy reversal of outlawries in the court of king's bench. This motion was rejected by a great majority: the ministerial party urging that the power of the attorney-general was the same that ever it had been, and founded on common law. The abuse of power was no argument against the legal exercise of it; it was dangerous to overthrow established customs; the actions of the attorney-general were cognizable by parliament, which control must for ever prevent a licentious exertion of his power, &c. These arguments, however, even with the rejection of the motion, did not put an end to the disputes on this subject. The courts of justice themselves were at this time very unpopular, on account of some late decisions which had

been deemed contrary to law. The judges had assumed a power of determining whether a paper was a libel or not; and the business of the jury was confined to the determination of the fact regarding its publication: thus, it was said, the judges had it in their power to punish a man who had been found guilty of publishing a paper, whether seditious or not. Lord Chatham, in a speech on the Middlesex election, took occasion to mention these abuses; and was answered by lord Mansfield, who looked upon himself to be particularly pointed at. The former finally moved that a day should be appointed for taking into consideration the conduct of the judges; in which he was ably seconded by the lord chancellor. A committee of enquiry was accordingly moved for, on December 6th, 1770: but, after a long debate, was rejected by 184 to seventy-six. Other disputes arose in parliament on the external relations of the country. A motion was made on the 10th of December 1770, by the duke of Manchester, that an address be presented to his majesty that he would give orders for quickening our preparations for defence in the West Indies and in the Mediterranean; and particularly for securing the posts of Gibraltar and Minorca. But while the noble mover was descanting on the negligence of ministry, in leaving posts of such importance in a defenceless state, he was interrupted by lord Gower, with a motion for clearing the house. His lordship was answered by the duke of Richmond, who complained of the interruption given to the duke of Manchester, as a proceeding both irregular and insidious. This produced a considerable degree of altercation. Several members attempted to speak; but finding it impossible, and piqued at the behaviour of the minister, eighteen or nineteen of them left the house in a body. The members of the house of commons then present were not only commanded to depart, but some of the lords went personally to the bar, and insisted on their leaving the house immediately. These members alleged that they attended with a bill, and were there in discharge of their duty; but this availed nothing, and they were peremptorily ordered to withdraw till their message should be delivered. In the mean time the eighteen lords, who had just left the house of peers, had gone to the lower house, where they were listening to the debates, when the commoners, who had been ejected from the upper house, arrived full of indignation, and making loud complaints of the affront they had received. The affair terminated in a misunderstanding between the two houses, which continued during the whole session.

After the discussion of the affair of Falkland's Islands, a gross instance of corruption, in the borough of New Shoreham, Sussex, was laid before parliament. Roberts, the officer of the borough, having returned a candidate with only thirty-seven votes, when his opponent had eighty-seven. It was discovered that a select committee of the members of a club in the town were appointed to sell the borough to the highest bidder; the committee men never appearing at elections, but giving orders to the rest, and directing them how to vote. The motion for an enquiry being carried unanimously, a bill was brought in to incapacitate eighty-one freemen of this borough, whose names were mentioned, from ever voting at elections: and, for the more effectually preventing bribery and corruption, the attorney-general was ordered to prosecute the committee belonging to the 'Christian club:' the bill for incapacitation did not receive the royal assent, however, till the last day of the session.

Some members of the house of commons complained at this period that their speeches had been misrepresented in the papers, and endeavoured to put a stop to the practice of printing them. It was contrary to the standing order of the house to print the speeches of the members of parliament at all; and a motion for calling two of the principal printers to account was carried by a considerable majority. The printers, however, did not attend the summons of the messenger; and their disobedience was greatly applauded by the popular party. It was now farther moved that they should be taken into custody, by the serjeant at arms, for contempt of the orders of the house; when this officer complained that, not being able to meet with them at their houses, he had been treated with indignity by their servants; on which a royal proclamation was issued for apprehending Wheble and Thomson, the two obnoxious printers. In the mean time six other printers, who had rendered themselves equally obnoxious on the above account, were ordered to attend the house. Some of these delinquents were reprimanded at the bar; and one, who did not attend, was ordered to be taken into custody. But Wheble being now apprehended, in consequence of the proclamation, was carried before Mr. Alderman Wilkes, by whom he was discharged. Thomson was discharged in the same manner. J. Miller, one of the six who had refused to attend, was taken into custody, from his own house, by the messenger of the commons. On this he sent for a constable, and was carried along with the messenger before the lord mayor, and aldermen Wilkes and Oliver, at the mansion house. The lord mayor refused to deliver up the printer and messenger at the request of the serjeant at arms; and, after some dispute, the messenger was committed to prison, as he had been accused by Miller of assault and false imprisonment, and the serjeant had refused to find bail; however, he was immediately released upon bail being given. By this affront not only the ministerial majority, but many of the popular party in the house of commons, were greatly irritated. The lord mayor was ordered to attend the house next day: when he pleaded that he had acted in no way inconsistent with the duties of his office; as, by an oath which he took when entering upon it, he was bound to preserve the franchises of the city, as recognised by act of parliament. It was then moved that he should be allowed counsel. The motion, however, was over-ruled, it being insisted that no counsel could ever be permitted against the privileges of the house. At last it was resolved that the lord mayor's clerk should attend with the book of minutes; and he was obliged to expunge out of it the re-

cognizance of Whittam the messenger; this was followed by a resolution that there should be no more proceedings at law in the case; and that the lord mayor and Oliver should be committed to the Tower. Some proposed his expulsion from the house; others a vote of censure: and, when it was proposed to commit him, the utmost confusion took place, some members declaring that they would accompany him to the place of confinement, &c. Some days after the commitment, when the lord mayor attended at the house of commons, insults were offered to many of the members, particularly lord North; who, on this occasion, lost his hat, and narrowly escaped with his life.

Wilkes, on being ordered to attend on this memorable occasion, wrote a letter to the speaker, in which he observed, that no mention had been made of his being a member; and that if his seat in parliament, to which he had been duly elected, was to be granted him, he would attend and justify his conduct. The ministry, however, declined to encounter this demagogue at this time: and were reduced to the miserable shift of ordering him to attend on the 8th of April, 1771, at the same time that they adjourned the house to the 9th.

Every step taken about this time by administration seemed calculated to add to the public ill humor. Towards the end of the session a bill was brought in 'for enabling certain persons to enclose and embank part of the river Thames, adjoining to Durham yard, Salisbury-street, Cecil-street, and Beaufort-buildings, in the county of Middlesex.' This bill was opposed, as contrary to the ancient rights and privileges of the city of London; but was easily carried through both houses, though it produced a protest in the upper house; and, a few days before the rising of the session, the city of London petitioned against it. The only other transaction of moment during this session related to the East India company. It was proposed to raise 2000 men in England for the service of the company, the officers to be appointed by the king, and to be paid by the company. But, after much argument, it was rejected as unconstitutional and dangerous to keep an armed force in the kingdom which was not paid by government. The session terminated on the 8th of May, 1771. When the lord mayor and aldermen were released by this event from the tower, they were welcomed by every mark of public congratulation. The city was illuminated; and the mob, as usual, took vengeance on their opponents by breaking their windows. A committee was even appointed to carry on a prosecution against the speaker of the house of commons; but, as this did not seem likely to afford them any redress, they determined once more to have recourse to the throne. Accordingly, on the 10th of July, 1771, another petition and remonstrance was presented, the subjects of which were the embankments of the Thames, the proceedings against the magistrates, and a speedy dissolution of parliament. But this met with as unfavorable an answer as before. His majesty said, that he was ready to put an end to the real grievances of his faithful subjects; but was sorry to find that a part of them still renewed requests, which he had repeatedly refused to comply with.

In the speech from the throne, when the parliament met, January 21st, 1772, his majesty observed, that the performance of the king of Spain's engagements, and the behaviour of the other European powers, promised a continuance of peace; and, though the necessity of keeping up a respectable naval force was evident, yet no extraordinary aid for that purpose would be necessary: he concluded with recommending the most vigilant and active attention to the concerns of the country, with an assurance of the interposition of the crown to remedy abuses or supply defects. Little dispute was made about the addresses in answer to this speech; but an ample subject of altercation soon occurred. This was a motion made by administration, intimating the necessity of raising 25,000 seamen for the service of the year; 'it being always necessary,' they said, 'for us to preserve a superiority to the French in the East Indies, which had not been the case since they sent a considerable fleet thither. It was equally necessary to preserve the present strength of the West Indies unimpaired; as the Spaniards knew the importance of our settlements there too well not to make an attack upon them first, if ever a rupture should take place. A declaration of this kind, coming immediately after the assurances of peace that had been given from the throne, was said to be a contradiction; that the peace establishment would be thus augmented till we were overburdened by it, &c. If the assurances of peace from the throne were well founded, the force in the East Indies was already too great; if, on the contrary, a war was at hand, it would be too small notwithstanding the proposed augmentation. The question for the augmentation, however, was carried without a division: after which the subject of subscription to articles of religion came to be discussed. This was, in fact, occasioned by the general tendency to Arianism or Socinianism which had for some time prevailed, and had infected the established church in such a manner, that the subscription to her standards was reckoned intolerable by many of the clergy. Meetings had been held by the discontented members, to consider of some mode of relief; and in the beginning of February, 1772, about 250 of them, with several professors of law and physic, joined in a petition to the house of commons, expressing their dissatisfaction with the subscription to any human forms, and praying for relief. In this petition they asserted, that they held certain rights and privileges from God alone; such as the exercise of their own reason and judgment, by which they were instructed and confirmed in their belief of the Christian religion, as contained in the holy scriptures. They accounted it a blessing to live under a government, which maintained the sufficiency of the scriptures to instruct in all things necessary to salvation. Hence they concluded, that they had a right from nature, as well as from the principles of the reformed religion, to judge for themselves, what was or was not contained in the scriptures. From this invaluable

privilege, however, they found themselves in a great measure precluded by the laws relative to subscription; by which they were enjoined to acknowledge certain articles and confessions of faith, framed by fallible men, as entirely agreeable to scripture. They prayed, therefore, to be relieved from such impositions, and to be restored to their undoubted right of interpreting scripture for themselves, without being bound by any human explanation of it, or being required to acknowledge, by subscription or declaration, the truth of any formulary of religious faith and doctrine whatever, excepting the holy scripture itself. The affair of subscription they looked upon to be not only a grievance to themselves, but an encroachment on their rights as men, and members of a Protestant establishment, as well as a great hindrance to the spreading of the Christian religion; giving occasion for unbelievers and Papists to reproach and vilify the clergy, by representing them as guilty of prevarication, and of accommodating their faith to lucrative views. Such of the petitioners, as had been educated with a view to the professions of civil law and physic, said they, could not but think it a great hardship to be obliged, as they all were in one of the universities, even at their first matriculation and admission, though at an age very improper for such important disquisitions, to subscribe their assent to a variety of theological tenets, concerning which their private opinions could be of no consequence to the public, in order to entitle them to academical degrees in those faculties; more especially as the course of their studies, and attention to their practice, did not afford them leisure sufficient to examine how far these tenets were consonant to the word of God. This petition was presented by Sir William Meredith, who, along with the other members who favored the cause, enforced it by many arguments drawn from the principles of toleration. The articles themselves were said to have been composed in haste; that they contained doctrines highly controvertible; and that this restraint on the consciences of men was of all others the greatest hardship. A majority of both houses of parliament, however, were inimical to the petition, though some who opposed it wished for time to consider it more deliberately. By the rest it was urged, that the matter of the petition was a violent infraction of the laws; and that, if this was granted, another would soon follow against the liturgy. The conduct of many of the petitioners, instead of being founded in any regard for religion, it was said, had its origin in hypocrisy and dissoluteness, and proceeded in many instances from a disbelief of the Trinity, and of the divinity of our Saviour. The complaints of men were to be disregarded, when they wished to profit by the emoluments of the church without subscribing to its laws; besides, the king was bound by his coronation oath to continue the government of the church without alteration. The rejection of the subscription bill was followed by that of a bill for quieting the possessions of his majesty's subjects from dormant claims of the church; after which the attention of parliament was called to another measure of the utmost importance, introduced by a message from the king. This was the famous royal marriage act, occasioned by the marriage of the duke of Cumberland with Mrs. Horton, a widow lady, daughter of lord Irnham, and sister to colonel Luttrel, and that of the duke of Gloucester with the countess dowager of Waldegrave. By the message it was recommended to both houses to take it into their consideration, whether it might not be expedient to supply the defects of the law then in being, and by some new regulations more effectually to prevent the descendants of his late majesty (excepting the issue of the princesses who had married, or might hereafter marry into foreign families) from marrying without the consent of his present majesty, his heirs, and successors: and a bill was brought in by the ministry, declaring all such marriages, without the consent above mentioned, to be null and void. The descendants of his majesty, however, if above the age of twenty-five years, might marry without the royal consent, provided they gave intimation a year before to the privy council, and no opposition was made to the match by parliament during that interval. This bill met with the most violent and powerful opposition. The principal arguments against it were expressed in two protests from the upper house, and were to the following purpose:—1. The doctrine that marriages in the royal family are of the highest importance to the state, and that therefore the kings of this realm have ever been trusted with the care thereof, is both absurd and unconstitutional: though it would from that period have the force of a parliamentary declaration. The immediate tendency of this was to create as many prerogatives to the crown, as there are matters of importance in the state; and to extend them in a manner as vague and exceptionable, as had ever been done in the most despotic periods. 2. The enacting part of the bill had an inconvenient and impolitic extent; namely to all the descendants of George II. In process of time, that description might become very general, and comprehend a great number of people; and it was apprehended that it would be an intolerable grievance for the marriages of so many subjects, perhaps dispersed among the various ranks of civil life, to be subject to the restrictions of this act; especially as the abettors of this doctrine had also maintained, that the care and approbation of the marriage also included the education and custody of the person. This extensive power might in time make many of the first families of the kingdom entirely dependent on the crown; and it was regretted that all endeavours to limit, in some degree, the generality of that description, had proved ineffectual. 3. The time of nonage for the royal family appeared to be improperly extended beyond the limit of twenty-one years; a period which the wisdom of the constitution seems with great wisdom to have assigned to minority. 4. The deferring their marriage to the age of twenty-six might also be attended with other bad consequences, by driving them into a disorderly course of life, which ought to be particularly guarded against in those of such an exalted station. 5. The power given by this bill, to a

prince to marry after the age of twenty-six, is totally defeated by the proviso, which declares the consent of parliament to be ultimately necessary. Thus great difficulties must be laid on future parliaments, as their silence in such a case must imply a disapprobation of the king's refusal; and their concurrence with it might prove a perpetual prohibition from marriage to the party concerned. 6. The right of conferring a discretionary power of prohibiting all marriages, appears to be above the reach of any legislature whatever, as being contrary to the inherent rights of human nature; which, as they are not derived from, or held under, the sanction of any civil laws, cannot be taken away by them in any case whatever. 7. This bill has a natural tendency to produce a disputed title to the crown. If those who are affected by it are in power, they will easily procure a repeal of this act, and the confirmation of a marriage made contrary to it; and if they are not, it will at least be the source of the most dangerous faction that can exist in any country, viz. one attached to the pretender to the crown; whose claim, he may assert, has been set aside by no other authority than that of an act to which the legislature was not competent, as being contrary to the common rights of mankind. 8. The bill provides no security against the improper marriages of princesses married into foreign families and those of their issue; which may fully as materially affect the interest of this nation, as the marriages of princes residing in the dominions of Great Britain; and it provides no remedy against the improper marriage of the reigning king, or regent, &c., though evidently the most important of all others to the public. The answer to all these arguments was, that the inconveniences so much talked of were merely imaginary; and, if the king should make any improper use of his authority, parliament had it either in their power to prevent the effect, or to punish the minister who advised it. The crown, it was said, was dishonored by improper connexions, and many of the greatest national calamities have proceeded from improper alliances between the royal family and subjects; and that if, from after experience, we should find any material grievances ensue from this act, it could as easily be repealed at that time as thrown out now, and on better grounds. It was very rapidly carried through both houses; in the upper house by ninety to twenty-six; and in the lower by 165 to 115.

Although the late decision, concerning subscription to the thirty-nine articles, did not promise much success to any innovations in religious matters, yet the case of dissenting ministers was introduced soon after the discussion of the royal marriage act. A petition was presented by a great body of these people, praying to be relieved from the hardship of subscribing to the articles of a church to which they did not belong, and a bill grounded on the petition was fully debated. It was violently opposed by the opponents of the former bill, though with very little success in the house of commons, where it was carried by a prodigious majority. It was argued that nothing can advance the true interest of religion so much as toleration; and, if articles of subscription are necessary, it must only be for men destitute of principle, and who would, in compliance with ambition or avarice, as readily subscribe to one set of articles as another. If thus any of the fundamental doctrines of Christianity are impugned, there are many laws in existence to correct the impiety. The dissenters have indeed altered some of their original forms and doctrines, but that only in matters of indifference. It is the effect of learning, leisure, and refinement, to give men many opportunities of altering established forms. This has been the case formerly, and always will be. The dissenters have long been virtually exempted from this subscription; and yet the piety and decency of many of them, particularly in Scotland and Ireland where no such laws are in being, sufficiently show, that men, whose minds are stedfast in the purity of religion, will not be confined nor influenced by laws of human invention. But, though the dissenters enjoy full liberty by connivance at present, where is their security against the sudden attacks of malice and envy, which may be backed by the sanction of law? Every neglect of a law by connivance is an additional proof of the necessity of abrogating that law; and liberty is but an empty name, where it is enjoyed by an oversight only, as it were, of our superiors. In the house of lords, however, the bill was rejected by a majority of seventy. Here the doctrine of universal toleration was strenuously opposed, as well as the great danger set forth to which the church of England would be exposed, by departing from the laws which guarded its privileges. The dissenters, it was said, had great reason to be satisfied with the favor they enjoyed by connivance; and the laws were only kept on record as a necessary curb, lest, in the degeneracy of a declining age, religion should be destitute of protection against heresy and blasphemy.

The only other important debates of this session were respecting an enquiry into the affairs of the East India company, which were now in a very critical situation. These, however, did not come under full consideration till the next session, which took place November 26th, 1772; and now they occupied the chief attention of parliament. It had been projected, as far back as the year 1767, when they were in a very flourishing condition, to bring them under the inspection of government, that the nation might share the immense wealth supposed to be enjoyed by the company. The design, did not succeed at that time, nor would it probably have been easily brought to bear, had not the affairs of the company become embarrassed. A motion was now made in parliament, by a gentleman unconnected with administration, for a select committee to enquire into the affairs of the company: but many reasons were urged against this, particularly that the season was too far advanced for a business of such importance; that the committee, being a secret one, was not accountable for its conduct; and that, as the minister would have it in his power to nominate the members of the committee, considerable partiality might on that account take place. The motion, however, was

carried without a division; and the members were chosen by ballot. During the recess, the affairs of the East India company proceeded from bad to worse. The treasury at home was quite exhausted; while bills to a vast amount, drawn on Bengal, were nearly due; which, with their debt to the bank and other public offices, along with the sum to be paid to government, reduced them almost to the brink of bankruptcy. They were therefore reduced to the expedient of borrowing a sum of money from administration: but their application was received with great indifference. The minister desired them to apply to parliament. The reports of the select committee, in the mean time, contrary to the promise of secrecy, were published, and gave the public no favorable opinion of the behaviour of the company's servants. At the next meeting of parliament, the minister moved for another committee, under the title of the committee of secrecy, to consist of thirteen persons, for taking into consideration the state of the company's affairs; which might thus undergo a full investigation. The members of this new committee were also to be chosen by ballot. It was objected that this mode of secret enquiry, by a small number, was unprecedented and unconstitutional; that the members would, in effect, be nominated by the minister, and act under his direction; and that a free investigation by parliament was essentially different from that by a secret committee. In the latter case, every information that the minister thought proper to conceal would be withheld: at any rate a committee of secrecy is an evident absurdity; a committee can be no longer secret than during the time it takes up for enquiry. Its proceedings must be laid before the public; and, in case of unjust accounts, the parliament had no means of being undeceived. These reasonings, however, were of no avail. The committee of secrecy was carried without a division; and the members, though chosen by ballot, were almost all devoted to administration. The select committee was likewise revived. In a very short sime after these appointments, a report was given in, stating that the company were in great distress for want of money; and, as this was the case, a bill ought to be brought in for restraining them from sending out supervisors to India, a scheme which they, at this time, meditated. The minister and his adherents enlarged greatly on the utility of this bill. It was the sincere wish of parliament, they said, to render them a great and successful company: but it was absolutely necessary for this purpose not to allow them to engage in an expensive commission, at a time when their affairs were so much embarrassed. It was even doubted whether the company, without the sanction of parliamentary authority, had power to appoint a commission of this kind. On the other hand, the minister's proposal was characterised by opposition as unconstitutional and insidious. Two gentlemen, belonging to the company, offered to pledge themselves, that the commission of supervision should not be allowed to depart, until, from further reports, a full knowledge of the company's affairs should be acquired. This, however, was instantly rejected, it being said to be defective in security; that the East India company would not scruple to make an agreement of this kind to-day, and break it to-morrow; which could only be prevented by an act of parliament, &c. The company, in fact, used every endeavour to prevent this bill passing into a law. They petitioned; and some of their servants were examined in the house of commons, in order to show the necessity of supervisors being sent out, who might be qualified to reduce their affairs to some order by being on the spot. In spite of all opposition, however, the bill for restraining the company from sending out any commission of supervision was carried by a majority of 153 to twenty-eight. In the house of lords it met with similar success, being carried by twenty-six to six, though the minority entered a protest. The secret committee now gave in their second report, containing a statement of the debt, credit, and effects of the company in England; beginning with an account of the cash in the company's treasury on the 1st December, 1772, and containing a statement of all their debts and claims. Thus it appeared that the cash, credit, and effects, of the company amounted to £6,397,299 10*s*. 6*d*., and their debts to the sum of £2,032,306, leaving a balance in their favor of £4,364,993 10*s*. 6*d*., without any estimate of the value of their fortifications and buildings abroad. The statement, however, was complained of as unfair: and it was said that impartiality was not to be expected from men who had it in their power to make what report they pleased for the interest of government: but the administration insisted, that, until proof could be brought that the statement was unfair, the house was bound to adhere to it.

The business was revived, after the holydays, by an application from the company to government, for a loan of £1,500,000, for four years, at four per cent. interest, with the liberty of repaying the same according to their ability; and that the company should not make a dividend of more than six per cent. until the loan should be reduced to £750,000. It was also requested, that the company should be released from the heavy penal interest, incurred by the non-payment of money owing in consequence of the late acts for the indemnity on teas; and that they should be discharged from the annual payment of the £400,000 to the public, for the remainder of the five years specified in the agreement. They farther requested that the accounts of the Duannee revenues, of the charges of collection, expenses of Bengal, company's accounts of sales, &c., should be delivered annually to parliament, and that leave might be given to export teas, free of all duty, to America, and to foreign parts. This request was judged expedient to be granted, and resolutions in conformity to it were agreed to. The two following motions were also founded upon the report of the secret committee, viz. That, supposing the public should advance a loan to the East India company, it was the opinion of the committee that the dividend should be restrained to six per cent., until the payment of the sum advanced; and that the company be allowed to divide no more than seven per cent. until their bond debt be

reduced to £1,500,000. These severe restrictions were judged proper by administration for the security of the public, and were such, they said, as every creditor has a right to make beforehand with a person who wishes to borrow money from him. The company, however, replied, that the restrictions were contrary to the proposals they had made, and void of foundation, as being built on the erroneous reports of the secret committee. The chairman of the company declared, at a general court, that the government had agreed, or would agree, to the proposed dividend, before the participation of profits took place betwixt the government and company; the first lord of the treasury had told him so, and now wished to deny what he had said. Some time was demanded to consider of these motions; but, that being denied, the question was put and carried as the ministry proposed.

It was next proposed to deprive the company of their supposed territorial right to the countries they possessed in the East Indies. This had been allowed them in the most explicit manner, as appears by some of the papers which passed between the French and English ministers, during the negociations for the treaty of Paris; from one of which the following is an extract:—'Respecting those territorial acquisitions which the English East India company have made in Asia, every dispute relative thereto must be settled by that company itself, the crown of England having no right to interfere in what is allowed to be the legal and exclusive property of a body corporate, belonging to the English nation.' This right, however, was now denied. After reading the company's petition, lord North told the house, that it was the opinion of several great lawyers, that such territorial possessions as the subjects of any state shall acquire by conquest, are virtually the property of the state, and not of those individuals who acquire them. It was his opinion, however, that it would be more beneficial to the public, and to the East India company, to let the territorial acquisitions remain in the possession of the company for a limited time, not exceeding six years, to commence from the agreement betwixt the public and the company. At the same time it was moved, that no participation of profits should take place betwixt the public and the company, until after the repayment of £1,400,000 advanced to the company; and the reduction of the company's bond debt to £1,500,000. That after the payment of the loan advanced to the company, and the reduction of their bond debts to the sum specified, three-fourths of the neat surplus profits of the company at home, above the sum of eight per cent. upon their capital stock, should be paid into the exchequer for the use of the public, and the remaining fourth be set apart, either for reducing the company's bond debt, or for composing a fund for the discharging of any contingent exigencies the company might labor under. These proceedings were exceedingly disagreeable to the company. But the only effect which these remonstrances produced was that it was agreed by government that, as the company had a stock of teas amounting to about 17,000,000 of pounds in their warehouses, they should be allowed to export as much of it as they thought proper free of duty, and employ the money thence arising for the benefit of their affairs. This concession in favor of the East India company, it is remarkable, proved in the event the loss of the American colonies; nor, indeed, could these arbitrary proceedings with such a considerable body tend to impress the minds of any part of the nation with ideas favorable to the views of administration. In other respects the minister abated nothing of the disposition he had from first to last shown with regard to the company. On the 3rd May, 1773, the following resolutions were proposed by him as the foundation of a bill for establishing certain regulations for the better management of the East India company, as well in India as in Europe. 1. That the court of directors should, in future, be elected for four years; six members annually, but not to hold their seats longer than four years. 2. That no person should vote at the election of the directors, who had not possessed their stock twelve months. 3. That the stock of qualification should, for the future, be £1000 instead of £500. 4. The mayor's court of Calcutta should, for the future, be confined to small mercantile causes, to which its jurisdiction only extended before the territorial acquisitions. 5. That, instead of this court thus taken away, a new one should be established, consisting of a chief justice and three puisne judges. 6. These judges to be appointed by the crown. 7. That a superiority be given to the presidency of Bengal over the other presidencies in India. Each of these resolutions was carried by a great majority. The salaries of the judges were fixed at £6000 each, and that of the chief justice at £8000. The governor of the council was to have £25,000 annually, and the members of the council £10,000 each.

By the friends of the company this bill was supposed to have a tendency to effect a total alteration in its constitution in England, as well as in the administration of all its presidencies in Asia. No delinquency was charged, nor any specific ground of forfeiture of their privileges, they said, assigned; yet, by this bill, more than 1200 freemen were to be disfranchised and deprived of any voice in the management of their own property. By cutting off the £500 stockholders, the proprietary would become more manageable by the crown; nor was there any security, that the directors would be faithful to the interests of the company, when they were no longer responsible to them for their actions. The proprietors of £500 stock presented a petition, setting forth that, by king William's charter granted to the company, and repeatedly confirmed since that time, in consideration of many large sums repeatedly advanced by the company to the public, they were legally possessed of a right of voting at the election of directors, making of bye laws, or in any other matter relating to the affairs and government of the company; but, by a clause in this regulating bill, they were deprived of this right, and that under a pretence of preventing the pernicious practice of splitting stock by collusive transfers; for so far were the proprietors from giving way to such practices, that, in the year 1767, they petitioned parliament for

an act, by which the several proprietors entitled to vote should be obliged to hold this qualification six months, at least, before the exercise of their right, afterwards extending the time to twelve months, rather than the act should fail of its intended effect. This proposed increase of the qualification of the voters, however, could not, in any degree, answer the end desired; for, the splitting of stock being confined to such proprietors as held large quantities, they would find it an easy matter to place their stocks in the hands of half the number of persons, and thus extend their influence in a great and undue proportion: but, if ever government conceived designs against the company, they would find it much easier to execute them while the proprietors were few and opulent, than when they were numerous, and at the same time independent, and possessed of moderate fortunes. This petition produced a motion in the house of commons, 'That it does not appear that the proprietors of £500 stock in the East India company have been guilty of any delinquency in the exercise of their charter rights, according to the several acts of parliament made in their behalf.' This, however, being rejected, the regulating bill passed in the house of commons by a majority of more than six to one. In the house of lords it passed by seventy-four to seventeen.

All this time enquiries were continued by the select and secret committee; and a report was presented by general Burgoyne, containing many charges of cruelty and rapacity in the conduct of several gentlemen, concerned in the management of the affairs of the company; particularly with regard to the deposition of Surajah Dowlah in 1756. This was said to have been the origin of all the evils that had happened since that time. He insisted much on the treachery used in bringing about that revolution, and particularly the fictitious treaty with Omichund; exposed the conduct of lord Clive, who had caused admiral Watson's name to be affixed to that treaty, which the admiral had refused to sign in person, &c. He concluded with moving for the restitution of all the money received in presents, or otherwise, in India, while the receivers acted in a public capacity: 'That all acquisitions made under the influence of a military force, or by treaty with foreign powers, do of right belong to the state; that to appropriate acquisitions obtained by such means is illegal; and that great sums of money had been obtained by such means from the sovereign princes in India.'

The general belief that many of the company's servants had acted in a most infamous manner, was at this time so strong, that the above resolutions were carried almost unanimously. Lord Clive defended himself by general protestations of innocence; which, however, gained him but little credit, till he entered into a particular refutation of the charge against him. General Burgoyne now moved, 'That lord Clive, in consequence of the powers vested in him in India, had received at various times presents to the amount of £234,000 sterling, to the dishonor and detriment of the state;' but this being rejected, after violent debates, the following was substituted: 'That lord Clive did, in so doing, abuse the power with which he was entrusted, to the evil example of the servants of the public.' This motion, also, being rejected, another was made, 'That lord Clive, when he received the sum above mentioned, did at the same time render great and meritorious services to his country.' Thus the matter was concluded, and the affairs of the company delivered into the hands of administration, who declared that their regard for its welfare was the sole motive for bringing about this revolution.

In America the trifling tax on tea, which had not been repealed, and the allowance given to the East India company to export what quantities they pleased, now threw matters into a ferment not to be quelled. The various proceedings there, and subsequent war, are elsewhere related. Here it only remains to give an account of the manner in which the legislature and people of Great Britain were affected by these events. Ever since the peace, in 1763, the disposition shown by government to augment the revenue had produced in the popular party of Great Britain a spirit very similar to that manifested by the Americans, though in an inferior degree: so that the patriots of Britain considered the Americans as oppressed by government, and suffering in the same cause with themselves. The destruction of the tea at Boston and other places in America, however, considerably diminished the number of their friends, and made many of those who still adhered to their cause much less sanguine. The matter was announced to parliament by a special message from the throne. Lord North and the other ministers set forth the conduct of the colonists, particularly of the town of Boston, in a most atrocious light; and concluded that government was now perfectly justifiable in adopting any measures they might think proper, to inflict punishment on that town. Opposition did not pretend to exculpate, though they still attempted to excuse them, by deriving all the disturbances in that country from the arbitrary and absurd measures pursued at home. This charge the minister evaded by drawing the attention of the house to the more important consideration, Whether the Americans were now to be dependent, or independent, on Great Britain? The Boston port bill, being then brought in, was carried, but not without considerable opposition, both within and without doors. A petition was first presented against it by Mr. Bollan, agent for the council of Massachusett's Bay, urging an act of queen Elizabeth for the security of the liberty of the colonies. This was presented before the bill had actually made its appearance. After it had passed two readings, this gentleman presented another, desiring to be heard in behalf of the town of Boston, for the council of Massachusett's Bay. This was refused; because, though Mr. Bollan was agent for the colony, he was not for the corporation of the town of Boston. Another petition followed from the lord mayor, in the name of the natives and inhabitants of North America residing at that time in London. It concluded with these remarkable words, that 'the attachment of America would not survive the justice of Britain.' As little re-

gard, however, being paid to this as to the former petitions, and all proposals for a delay rejected, the bill passed both houses without a division. That this obnoxious bill might not be sent to America without some mitigation, the popular party now proposed to repeal the duty on tea laid on in 1767; but this was also rejected, from a vain expectation that the opposition of the Americans was that of a mere tumultuous mob.

Still greater opposition was made to the Quebec bill, so that, before it could be carried, the ministers were obliged to drop much of that high and aspiring tone to which they had accustomed themselves in talking of American affairs. The minority contended, that here, without any necessity pleaded, or even suggested, an arbitrary influence was extended by act of parliament to that province, furnishing a dangerous precedent, and an additional instance of the aversion which ministry bore to the rights of the people. The people at large, also, were alarmed at the religious part of the bill; and thought that the establishment of the Roman Catholic religion there gave it a preference over the protestant. At the conclusion of the session, the king expressed the greatest satisfaction at what had been done, and hopes of the good effects that would attend the new regulations. The reception they met with in AMERICA is related in its proper place; in Britain the people seemed to wait the event with indifference, but their bad success with the colonists furnished the minority with new matter of reproach on administration. The parliament in the mean time was dissolved by proclamation, and a very short time allowed for the election of new members. The new parliament met on the 30th of November, 1774; when his majesty acquainted the houses that a most daring spirit of resistance still prevailed in America, notwithstanding the most proper means had been taken to prevent the mischiefs thence arising; and assured them that they might depend on a firm resolution, on his part, to withstand every attempt to weaken or impair the supreme authority of this legislature over all the dominions of the crown. In answer to the speech, the minority demanded a communication of all the letters, orders, and instructions, relating to American affairs; but this being over-ruled, and the address carried as a matter of form, American affairs were delayed, in spite of all opposition, till after the holidays. In the question on the address, the majority in favor of administration, was 191; the votes being 264 to seventy-three.

7. *The American War.*—In the beginning of 1775 the minority received a considerable accession of strength by the return of lord Chatham to the house of lords, after a long absence. He testified his disapprobation of the measures which had been pursued with regard to America in the warmest terms; moved for addressing the king to recal the troops from Boston: and predicted that, if ministers went on in the way they had done for some time, they would make the crown not worth the king's wearing. All his eloquence, however, proved ineffectual; administration was determined to force the Americans into subjection, and his motion was rejected by sixty-eight to eighteen. Lord North now presented the papers which had been called for by the minority; with the exception of particular names, lest they should prove detrimental to individuals. This was complained of, but to no purpose; and the papers were laid before a committee of the whole house. In the mean time petitions against coercive measures with America had been received from most of the trading companies of the kingdom; and a committee was appointed to take them into consideration: but such a delay took place, in regard to these petitions, that the committee to which they were consigned was humorously called the committee of oblivion. A violent debate arose on the petition of congress to the king, which had been delivered and by him referred to parliament. It was argued by administration, that no petition could be received from the Continental congress, which was no legal body, and it would be admitting their legality to receive a petition from them; the general assemblies and their agents were the only lawful representatives of the colonies, and none else could be admitted. After an ineffectual struggle of opposition, the petition was finally rejected by 218 to sixty-eight. In the mean time a conciliatory plan was prepared by the earl of Chatham, which was presented on the 1st of February, 1775. The intent of this bill, he said, was to settle the troubles in America, and to assert at the same time the supreme legislative authority and superintending power of Great Britain over her colonies. This was to be done by their acknowledging the supremacy of the British legislature and the superintending power of parliament. No taxes were to be levied in America but with the free consent of their assemblies. It asserted a right in the crown to keep and station a military force established by law in any part of its dominions; but declared, that it could not be legally employed to enforce implicit and unlawful submission. A congress might also be held, in order to recognise the supreme sovereignty of Great Britain over the colonies, and to settle, at the same time, an annual revenue upon the crown, disposeable by parliament, and applicable to the exigences of the nation. On complying with these conditions, the acts complained of by congress were to be suspended, with every other measure pointed out as a grievance, and the constitution of their governments to remain as settled by their charters. This bill was, however, at once deemed inadmissible, on account of its alleged partiality to America, and particularly by its empowering the colonies to assemble in congress: a measure which, of all others, was at that time the most offensive. Lord Chatham was by no means deficient in arguments in support of his plan: but these, supported by all the powers of his eloquence, proved unsuccessful; the proposal being rejected by sixty-one to thirty-two. So determined were the majority in this entire rejection, that it was not even permitted to lie upon the table. A petition was next presented to the house of commons, by the proprietors of estates in the West India islands, representing their alarm at the association of the Americans, and

their intended stoppage of trade with the British islands; the situation of which, they said, would be very calamitous, if the acts in question were not immediately repealed. Administration represented all petitions now as the contrivance of faction; and said, that, however inconvenient the coercive measures might be, they ought not to be retarded by the consideration of any temporary losses. As it was necessary, however, to let the nation know the ultimate resolves of administration respecting America, lord North in a long speech asserted, that the universal fermentation, then prevailing in the colonies, proceeded from the arts used to dispose them against the ruling powers in Britain; and that, notwithstanding all their complaints, the public charges borne by individuals in America were, on the strictest computation, not more than one to fifty when compared to what was paid by individuals in England. Nothing, therefore, but a settled determination to quarrel with the parent state could induce the Americans to persist in their disobedience to the lawful injunctions laid upon them. For this reason he proposed to the house to send a competent force to America; and to pass a temporary act, suspending all the foreign trade of the different colonies of New England, particularly the Newfoundland fishery, until they should acknowledge the supreme authority of the British legislature. New England, he said, was justly singled out upon this occasion, as being the most guilty of the whole. The question now was simply, Whether we would at once abandon all claims on the colonies, and instantly give up the advantages arising from our sovereignty, and the commerce dependent on it? or, Whether we should resort to the measures indispensably necessary to ensure both? An address was carried, which, in the ideas of opposition, amounted to an absolute declaration of war.

In the mean time matters went on from bad to worse in New England; so that it was soon perceived, either that the friends of government in that colony did not exert themselves, or that they were far from being so numerous as had been imagined. To make their coercive plan the more effectual, therefore, it was judged necessary to extend it, so that every individual of the colony should become sensible of the punishment. This, it was supposed, would be done by a bill for restraining the four provinces of New England from commerce with Great Britain, Ireland, or the British West India islands; and prohibiting them from carrying on the fishery at Newfoundland. The reasons given for this were in substance the same as those for the others; and indeed both parties had now so much exhausted their arguments, that very little new matter was left for either. Every step taken by ministry, and every proposal made by them, however, produced a violent debate; and, though they constantly gained the victory, it was not without the mortification of hearing their principles and conduct reprobated in the most opprobrious manner. In this instance the bill was carried by 261 against eighty-five.

The restraining bill was no sooner carried, than a petition was presented against it, by the London merchants concerned in the American trade, setting forth the danger that would accrue to the fisheries of Great Britain from such a prohibition. From the evidence brought in support of this petition it appeared, that ten years before the American fisheries had been in such a flourishing state, that the four provinces of New England alone employed nearly 46,000 ton of shipping, and 6000 seamen; and that the produce of their fisheries in the foreign markets amounted in 1764 to upwards of £320,000. Since that time they had greatly increased; and what rendered the fisheries particularly valuable was, that all the materials used in them, excepting only the timber for building the vessels, and the salt for curing the fish, were purchased in Britain, and the nett proceeds of the trade were also remitted thither. It appeared, also, that it would not be practicable to transfer these fisheries to Halifax or Quebec. Some other circumstances were likewise urged as strong reasons against this bill; particularly the commercial concerns of London with New England (to which city alone the colony stood indebted for nearly £1,000,000), and the bad consequences of it to the people of Nantucket, a barren island, lying off the coast of New England, about fifteen miles long, and three broad, containing about 6000 inhabitants, almost all Quakers. The natural produce of this island could not maintain twenty families; but the industry of the inhabitants was such, that they kept 130 vessels constantly employed in the whale-fishery, which they carried on in the North Seas, to the coasts of Africa and Brasil, and even as far as the Falkland Islands, and the shores of Terra Magellan ica. This bill was debated with great animosity in the house of peers, and produced a remarkable protest, in which the measures of government were spoken of with great severity. 'That government (said the protesting peers) which attempts to preserve its authority by destroying the trade of its subjects, and by involving the innocent and guilty in a common ruin, if it acts from a choice of such means, confesses itself unworthy; if from inability to find any other, admits itself wholly incompetent to the end of its institution.' They also reprobated in severe terms the assertion, that the Americans wanted spirit to resist, and that Britain would find them an easy conquest.

The final resolution of reducing the colonies by force being now taken, it became necessary to make proper preparations for the purpose; and in this the conduct of administration was little less censured than in other respects. As the opinion that the Americans were timid and incapable of becoming soldiers, prevailed greatly at that time, a force of 10,000 men was judged sufficient to reduce the province of New England to obedience. This was vehemently opposed by the minority. They insisted that the force was totally inadequate, and only calculated to produce expense to no purpose. The first impression, they justly observed, ought to be decisive, if possible; and, to render it so, it was necessary to send such a fleet and army as might ensure the confidence of the public, and be certainly capable of surmounting all obstacles.

Many of the friends of administration were of the same sentiments, and the only reason assigned for acting otherwise was, a hope that the Americans would, upon more mature consideration, desist from their opposition. That they might the more readily be induced to this submission, lord North's conciliatory proposition was formed. By this it was enacted, that when the governor, council, and assembly, of any of the colonies, should propose to make a provision for the common defence, &c., and if such provision should be approved of by the king in parliament, the levying, or imposing of taxes on that colony should then be forborne, those duties excepted which it might be expedient to impose for the regulation of commerce; the nett produce of which should be carried to the account of the colony where it was raised. But this proposal, though highly extolled by the friends of administration, was no less reprobated by the minority than the others had been. It was said to be insidious, and calculated for the purpose of raising a revenue, which was now said to be the object of ministers. There was no essential difference between the present and former modes of taxation. The colonies were as effectually taxed without their consent, by requiring them to pay a stated sum, as by laying a number of duties upon them to the same amount. There was besides a capital deficiency in the proposal, viz. that no sum was specified; so that the Americans were left totally ignorant of what the demands of Britain might be. After a long debate, however, the question was carried in favor of administration by 274 to eighty-eight. The like fate attended a petition to the throne from the island of Jamaica. Instead of relaxing any thing of their severity, the ministry now included the southern colonies in the restrictions laid on New England. Still, however, the petitioners were indefatigable in their endeavours to be heard.

The West India merchants and planters seconded their last petition, by a detail of circumstances relating to the British islands in that part of the world. This affair was conducted by Mr. Glover, a gentleman equally celebrated for his literary talents and commercial knowledge. From his investigations it appeared that, exclusive of the intrinsic worth of the islands, their stock in trade and other property amounted to no less than £60,000,000: the exportation to Britain had of late been nearly 200,000 hogsheads and puncheons of sugar and rum, amounting to no less than £4,000,000 in value; the direct revenue arising from which was £700,000, besides that which accrued from the collateral branches depending upon it. All this, however, was urged in vain. Conciliatory proposals were also made by Mr. Burke and Mr. Hartley, but they were rejected by great majorities. Government continued to enact new laws against the Americans; and their antagonists opposed these in a manner similar to what has been already related. Other petitions were presented and treated with neglect. The increase of union, and preparations for war among the colonists were by the ministerial party treated as the mere commotions of a headstrong mob; and by the other as an association of an injured and virtuous people, who were about to found a mighty empire in the west, while Britain was to sink in utter disgrace and contempt by their secession. On this principle, the event of the skirmish at Lexington was magnified by the one into a 'disgraceful defeat' on the part of the British; and by the other treated with absolute unconcern. Thus, also, the battle at Bunker's Hill, and all the transactions of the year 1775, were unfairly stated by both parties; and the only consequence ensuing from these misrepresentations was, the inflaming to a violent degree the resentment betwixt the two parties; one of which depressed the Americans to the rank of consummate poltroons, while the other exalted them almost to that of demigods.

While these alterations continued to agitate the minds of the superior classes of people in Britain, the middle and lower ranks remained in a kind of indifference, or rather were against the proceedings of ministry. This opposition could not indeed influence the councils of the nation, but in other respects it proved very troublesome. The levies were obstructed, and the recruiting service was never known to go on so heavily; numbers of people not only refusing the usual proffers, but even reprobating the cause in which they were solicited to engage. Besides this, several officers of high rank showed a great aversion to the service. Lord Effingham, who had distinguished himself by his opposition to ministerial measures, resigned the command of his regiment, rather than fight against the cause he had espoused so warmly. His example was followed by that of several other officers; and, while this step conferred upon them a considerable share of popularity, it excited in the minds of ministry an equal degree of resentment. Lord Effingham, in particular, received the public thanks of the cities of London and Dublin; both of which showed an extreme aversion to the commencement of hostilities with America. The former, after the affair at Lexington, framed a remonstrance and petition, animadverting in the most severe manner on the ministry and parliament; and it was not without the greatest difficulty, that the more moderate party procured one to be drawn up, under the name of an 'humble petition,' couched in less reprehensible terms. In the mean time several inconveniences began to be felt in different parts of the nation. The suspension of the sale and purchase of negro slaves in the West Indies and in North America, and the prohibition to export arms and gunpowder, had greatly impeded the African trade from Bristol and Liverpool. In consequence of this, a great number of ships which formerly sailed from these ports had been laid up, and nearly 3000 sailors belonging to Liverpool were dismissed from service. Their situations soon rendered them riotous; and it was not without the assistance of the military that they were quelled. These distresses, however, made no impression on administration; who having once laid it down as a maxim, that the subjection of America was the duty of Great Britain, were, in consistence with their own principles, obliged to overlook every disaster that might happen in the mean

time as a temporary inconvenience. It was with the utmost satisfaction, therefore, that the nation received the news of Mr. Penn's arrival in 1775, with a new petition from the congress to the king. This petition was delivered to lord Dartmouth on the 1st of September; and in three days it was replied, that no answer would be given to it; a procedure which excited no small surprise, as it was universally allowed that the language of the petition was respectful, and that it expressed the strongest desire for peace and reconciliation. On the other hand, the friends of administration insisted, that the petition offered nothing that could in consistency with the dignity of the British empire be taken notice of. Instead of professing any repentance for their own conduct, the Americans had offered stipulations, and even required concessions on the part of Britain. It was likewise said, that fear had a share in framing the proposals now held out. The colonists were sensible, that, though the first steps taken by Britain had not answered the purpose, much greater efforts would quickly follow; and that, without being allowed time, it was impossible they could bring their matters to bear. The petition, therefore, might be considered as written with a view to procrastinate matters. It was also plain, that a great majority of the nation approved of the measures of government; for addresses were received from all quarters, recommending in the most explicit manner vigorous exertion against America.

To the violent bickerings at home, some serious commercial misfortunes were now added from abroad. It had been represented as very probable, during the last session of parliament, that the bill for depriving the people of New England of the benefits of the Newfoundland fishery, would redound greatly to the interest of Great Britain, by throwing into her hands alone the profits which were formerly divided with the colonies. This expectation, however, proved totally void of foundation. The number of ships fitted out that year was scarcely greater than usual. The congress had also prohibited them from being supplied with provisions; so that not only those on board the ships, but even the inhabitants on the island of Newfoundland itself, were in danger of perishing. Many of the ships were therefore obliged to go in quest of provisions, instead of prosecuting the business on which they came. On the whole, therefore, the profits of the fishery suffered this year a diminution of nearly £500,000. Along with this, some natural causes co-operated, which, by the more superstitious, were considered as the effects of divine wrath. A most violent and uncommon storm took place in these latitudes during the fishing season. The sea arose full thirty feet above its ordinary level; and that with such rapidity, that no time was allowed for avoiding its fury. Upwards of 700 fishing boats perished, with all the people in them; and some ships foundered with their whole crews.

Ministers had determined on their plan of subjugating America; and the only difficulty was, how to put it in execution as quickly as possible. For this purpose, application was made to the petty states of Germany, who had frequently sent auxiliaries to Britain in former cases of exigency. At present, however, the scheme met with considerable difficulties. The princes were alarmed at the appearance of losing so many subjects; while the latter were no less startled at the proposal of being transported across the ocean into a new world, there to be exposed to all the miseries of war. In these plans, therefore, for the most part, the administration were disappointed. All the states of Europe looked upon Britain with an invidious eye, though none so much as Holland and France. A very strong party in Holland contended for the American interest, and pamphlets were daily published at Amsterdam in justification of the colonies. Their case was compared with that of the Netherlands in former times; and they were exhorted to persevere in their claims. Great Britain they represented as insatiably covetous of wealth and power. Since her successes in the war of 1775, it was said, she had become intolerable, not only to her neighbours, but to the whole world. But, though these powers thus early expressed their hostile disposition towards Britain, it was otherwise with the princes of Hesse and Brunswick; by whom, and some other German princes of inferior note, a considerable number of troops were supplied. At the same time, as many British forces as possible were drawn from the garrisons of Gibraltar and Minorca, which were supplied in return with men from the electorate of Hanover. In justice to the ministers, indeed, it must be owned, that they prosecuted the scheme they had undertaken with all possible vigor; insomuch that the expenses already began to occasion considerable alarm. It had always been supposed, that the British army would be at once victorious; or at least would remain so far masters of the field, that they could easily command what supplies of provisions were necessary. Instead of this, they were now cooped up in such a manner as to be actually in danger of perishing for want. The supplies, therefore, of necessity, were sent from Britain; and the exertions for their relief were at once magnificent and ruinous. One advantage, however, was derived from this immense profusion; the price of every consumable commodity was augmented; that of shipping, particularly, rose one-fourth in the ton; and, though the profits made by contractors and their numerous friends were complained of, the benefits which accrued to multitudes employed in the various branches of public business seemed in some measure to make amends for every thing. Misfortune, however, now seemed to attend every scheme in which the ministers engaged. The sailing of the transports was delayed so long, that their voyages were lost. They remained for a long time wind-bound; and, after leaving port, met with such stormy weather, that they were tossed to and fro in the channel, till most of the live stock they had on board perished. After clearing the coast of England, their progress was retarded by a continuance of bad weather. They were forced by the periodical winds from the coast of America into the ocean.

Some were driven to the West Indies, others were captured by American privateers, and only a very few reached the harbour of Boston with their cargoes quite damaged, so that they could be of little or no use.

Notwithstanding, therefore, the immense supplies above mentioned, a subscription was set on foot for the relief of the soldiers, as well as of the families of those who died in the service. This was liberal on the whole, though many refused to contribute, from their disapprobation of the cause. All this time the violent party animosities continued, and the desire of peace was gradually extinguished on both sides. Each seemed to be of opinion, that the other would willigly ruin the nation if possible; a remarkable instance of which was the commitment of Stephen Sayre, Esq., banker (one of the sheriffs of the preceeding year), to the tower, for high treason. The accusation laid against him was no less than that of having formed a design to seize his majesty as he went to the house of lords: but the scheme itself, and the method in which it was to be executed, appeared so ridiculous, that the prisoner was very soon discharged; after which he commenced a process against lord Rochfort for false imprisonment. With respect to the parliamentary proceedings, during this period, we need only say, every measure of administration, right or wrong, was violently opposed. The employment of foreign troops, and admitting them into the fortresses of Gibraltar and Minorca, were severely censured, as contrary to the bill of rights. But administration contended, that this bill only forbade the introduction of a foreign military power into the kingdom during peace. The force designed for the conquest of America was then declared to be inadequate to the purpose; but it was replied on the part of ministry, that the design was to conciliate not to conquer. The force (25,000 men) was sufficient to strike terror; and, though this should not instantly be produced, conciliatory offers would still be held out after every blow that was struck.

In the mean time, the Americans, sensible of the dangerous situation in which they stood, exerted themselves to the utmost to dislodge the British troops from Boston. This being at length accomplished, in March 1776, they proceeded to put their towns in the most formidable state of defence; and actually repulsed Sir Peter Parker, at Charlestown; but they did not exert equal spirit in the defence of New York; where, besides losing the town, they received such a defeat, as threatened their affairs with total ruin. In this view it appeared to the majority of the people in Britain. The successful campaign of 1776 was looked upon as so decisive, that the Americans were supposed to be incapable of ever retrieving their affairs. Opposition were embarrassed, and now almost reduced to the single argument of the interference of foreign powers, which they had often unsuccessfully used before. Besides this, indeed, the obstinacy of the Americans in refusing the offers of lord Howe, even at the moment of their greatest depression, seemed to be a very bad presage. The strength of ministry, however, now became so decisive, that whatever they proposed was immediately carried. The number of seamen for 1777 was augmented to 45,000, and upwards of £5,000,000 voted for the expenses of the navy. Those of the land service amounted to nearly £3,000,000, besides the extraordinaries of the former year, which amounted to more than £1,200,000. But, however administration might now triumph, their exultation was but of a short continuance. The misfortune of general Burgoyne, at Saratoga, threw the whole nation into a kind of despair, and reduced the ministry to the greatest perplexity.

The ministry after this were in no small difficulty how to raise a sufficient number of forces to carry on the war; but they extricated themselves by a masterly contrivance. This was the encouraging levies for government service by cities and private persons; and, as the design was kept a profound secret before the Christmas recess, they were not disturbed by the clamors of opposition. The recess was purposely extended, to give time for the scheme to take effect; and, before parliament met again, it was actually accomplished, so that ministers could once more face their opponents without fear. Another and more weighty consideration, however, now occurred. The European states, in general, had long beheld the grandeur of Britain with an invidious eye. The news of the disaster at Saratoga was therefore joyfully received among them. But, of all the foreign powers, the French, for obvious reasons, were the most active in supporting the Americans. Numbers of the young nobility were eager to signalise themselves in the cause of the colonies; and among the rest, the celebrated marquis de la Fayette. Impelled by an enthusiastic ardor in favor of the American cause, he purchased a vessel, loaded her with military stores, and sailed, with several of his friends, to America, to offer his services to congress. He met of course with a most gracious reception, and was invested with a command, in which he lost no opportunity of distinguishing himself. Besides this nobleman, several other officers of France and Germany entered into the American service, and by their military talents greatly contributed to the exertions which the colonies were enabled to make. The French court also now interested itself in their behalf; and the celebrated Dr. Franklin negociated a treaty, recognising the United States of America. Whatever might have been the motives of the British ministry, however, it is certain, that in defiance of probability, even when joined by the most acrimonious censures of opposition, they continued to pretend ignorance of any hostile intentions in the court of France, until that court of its own accord announced them, by a formal notification to the court of St. James's, in March 1778.

An acknowledgement of the independence of America was now by many supposed to be the only rational step that could be taken, particularly before they had time to enter into exclusive engagements with France. This of course would lessen their dependence on France, and leave

them at liberty to form such connexions as they thought most proper. The ministerial party, however, still insisted on vigorous measures, representing it as spiritless and disgraceful to bend beneath the power of France, and setting forth the resources of Great Britain as sufficient to resist the efforts of all her enemies. The dishonor of leaving the American loyalists exposed to the resentment of their countrymen was also urged. These were said to be by far the greater number; and it was insisted that their loyalty ought to be rewarded by putting arms into their hands: whatever the danger of the experiment might be, we could not abandon them without exposing our reputation, and losing that character of fidelity to our engagements for which we had hitherto been so justly respected. Unanimity in the present case was strongly insisted upon; and when opposition complained of some occult irresistible influence by which the councils of the nation were directed, in despite of every suggestion of reason and argument, the charge was denied in the strongest manner, and ministers disclaimed every motive of their conduct, excepting that of an internal conviction of its rectitude. In the midst of these violent altercations, the greatest courage and steadiness were manifested by the deliberate part of the nation. The French once more insulted the country by a threat of invasion; and orders were issued to draw out and embody the militia, which was then composed of men in every respect as well exercised and disciplined as any regular troops. It was complained, however, that a French squadron of twelve ships of the line had sailed from Toulon without any obstruction, under the command of the count d'Estaing. Great apprehensions were entertained from the evident inferiority of lord Howe's naval force, which might expose him to a total defeat, and the whole fleet of transports to be taken or destroyed by the enemy. But, whatever might have been the probabilities in this case, it is certain that either the fortune or conduct of this commander was such, that no exploit of any great consequence was ever performed by d'Estaing. The operations of the French in America, with the various success of the war, are related under the article AMERICA. We have only to notice here, that d'Estaing having failed in his attempt on the British fleet at New York, and in assisting his allies in their attempt on Rhode Island, as well as having by other parts of his conduct greatly disgusted them, sailed for the West Indies, where he unsuccessfully attacked the island of St. Lucia. Being repulsed in this attempt, he sailed to the island of Grenada, which he reduced, treating the vanquished in a very cruel manner, while a body of troops despatched by him also reduced the island of St. Vincent.

The count d'Estaing was now powerfully reinforced; so that his fleet consisted of twenty-six sail of the line and twelve frigates. During the time he was employed at Grenada, admiral Byron, with the British squadron, was accompanying the homeward bound West India fleet till out of danger; after which he sailed with a body of troops under general Grant for the recovery of St. Vincent; but, before they could reach that island, intelligence was received of the descent at Grenada. On this they steered directly for that island, where they encountered the French fleet without hesitation, notwithstanding the great superiority of the latter. At this time the French squadron amounted to twenty-seven sail of the line and seven frigates; while that of Britain consisted only of twenty-one ships of the line and one frigate. On the British admirals, Byron and Barrington, endeavouring to bring the enemy to a close engagement, it was studiously avoided by d'Estaing; and such was the dexterity and circumspection with which the latter conducted himself, that it was only by seizing the transient opportunities of the different movements, occasioned by the wind and weather, that some of the British ships could be made to close in with their antagonists. Even then the engagement was carried on upon such unequal terms, that the British ships were terribly shattered. For some time captains Collingwood, Edwards, and Cornwallis, stood the fire of the whole French fleet. Captain Fanshaw of the Monmouth, a sixty-four gun ship, singly threw himself in the way of the enemy's van to stop them; and several of the British ships forced their way to the very mouth of St. George's Harbour, on the island of Grenada; but, finding it in the hands of the French, an end was put to the engagement: nor did the French try to renew it, though the British ships had suffered so much. The count d'Estaing, having received fresh reinforcements, now set sail for America. The islands of DOMINICA, St. VINCENT, and GRENADA, were quite lost to Great Britain; the first being taken by the marquis de Bouille, governor of Martinico, and the last two by d'Estaing (see these articles); but these successes were balanced by the failure of the French commander in every other enterprise; by his terrible disaster at the Savannah; and by the acquisition of St. Lucia, which was taken in 1778 by admiral Barrington and generals Prescot and Meadows. See LUCIA, St. In other parts of the West Indian seas, also, the honor of the British arms was very effectually supported. Admiral Hyde Parker, assisted by admiral Rowley, kept the enemy in continual alarm, and intercepted the trade of the French islands in such a manner as greatly distressed them. Three large frigates despatched by d'Estaing, after his failure in America, were taken, and a great part of a convoy seized or destroyed in sight of M. de la Motte Piquet's squadron in the harbour of Port Royal at Martinico, the admiral himself having narrowly escaped. These successes, which happened in 1778, 1779, and beginning of 1780, kept the event of the war pretty much in an equilibrium on the western seas and continent; but in the mean time the most unhappy dissensions prevailed through every department of the government at home. Among other charges brought by the opposition, against the ministry, that of neglecting the navy had been one of the most considerable; nor indeed was the charge without foundation. The fleet was at this time in a very weak condition, and the valor and experience of the officers alone seemed to compensate that defect. The chief command was given

to admiral Keppel, who had served with uncommon reputation during the last war. Admirals Sir Robert Harland and Sir Hugh Palliser served under him. Arriving at Portsmouth about the end of March, 1778, Keppel exerted himself with so much diligence that, exclusive of those ships which it was found necessary to despatch to the coast of North America under admiral Byron, a fleet of twenty sail of the line was got in complete readiness by the beginning of June, and ten more were in a forward state. At the head of this fleet admiral Keppel sailed from Portsmouth on the 13th of June, to protect the vast number of commercial ships expected from all parts of the world, and at the same time to watch the motion of the French fleet at Brest. On the arrival of the British off the coast of France two French frigates approached to make observations. These were the Licorne of thirty-two guns, and the Belle Poule of twenty-six. In consequence of a signal to give chase, the Milford frigate overtook the Licorne towards the close of the day, and requested the French captain to come under the British admiral's stern; upon his refusal a ship of the line came up and compelled him to come into the fleet. Next morning, the Licorne seeming by her motions to be altering her course, a shot was fired across her way as a signal for keeping it. Hereupon she discharged a broadside and a volley of small arms into the America of sixty-four guns that lay close to her, and immediately struck. The Arethusa of twenty-six guns, commanded by captain Marshal, with the Alert cutter, was mean while in pursuit of the Belle Poule, also accompanied by a schooner, and the chase was continued till they were both out of sight of the fleet. On his coming up he informed the French captain of his orders to bring him to the admiral. This being refused, the Arethusa fired a shot across the Belle Poule, which she returned with a discharge of her broadside. The engagement, thus begun, continued more than two hours with uncommon warmth and fury. The Belle Poule was greatly superior not only in number but weight of metal; her guns were all twelve-pounders; those of the Arethusa only six: Notwithstanding this inferiority, she maintained so desperate a fight that the French frigate suffered a much greater loss of men than the British. Captain Fairfax in the Alert, during the engagement between the two frigates, attacked the French schooner, which being of much the same force, the dispute continued two hours with great bravery on both sides, when she struck to the English cutter. The Arethusa received so much damage that she became almost unmanageable. The Belle Poule, in the mean time, stood into a small bay surrounded with rocks, where she was protected from all attacks. Notwithstanding the great superiority on the side of the French, this action was extolled by them as a proof of singular bravery, and the account of it received with as much triumph as if it had been a victory. On the 18th of June, the day following the engagement with the Belle Poule, another frigate fell in with the British fleet; and was taken by the admiral's orders, on account of the behaviour of the Licorne. The capture of these French frigates produced such intelligence to the admiral, as proved of the utmost importance, at the same time that it was highly alarming. He was informed that the fleet at Brest consisted of thirty-two ships of the line and twelve frigates. This was in every respect a most fortunate discovery, as he had no more with him than twenty ships of the line and three frigates. The superiority of the enemy being such as neither skill nor courage could oppose in his present circumstances; and, as the consequences of a defeat must have been fatal to this country, he thought himself bound in prudence to return to Portsmouth for a reinforcement. Here he arrived on the 27th of June, and remained there till the ships from the Mediterranean, and the Spanish and Portuguese trade, and the summer fleet from the West Indies, coming home, brought him a supply of seamen, and enabled him to put to sea again with an addition of ten ships of the line. But still there was a great deficiency of frigates, owing to the great numbers that were on the American station, and the necessity of manning the ships of the line preferably to all others. In the mean time, the preparation at Brest being fully completed, the French fleet put to sea on the 8th of July. It consisted of thirty-two ships of the line, besides a large number of frigates. On the following day the British fleet sailed out of Portsmouth in three divisions; the first commanded by Sir Robert Harland, the third by Sir Hugh Palliser, and the centre by admiral Keppel, accompanied by admiral Campbell, an officer of great courage and merit. The French had been informed that the British fleet was greatly inferior to their own; and the admiral sailed at first in quest of it. On the 23rd of July they came in sight. But the appearance of the British ships soon convinced the French admiral of his mistake, and he immediately determined to avoid an engagement; in which he was favored by the approach of night. All that could be done on the part of the British was to form the line of battle, in expectation that the enemy would do the same. During the night the wind changed, however, so favorably for the French as to give them the weather gage; and thus it remained during the space of four days. Our fleet continued the whole time beating up against the wind, with a resolution to attack them; but the British admiral had the mortification to see his endeavours continually eluded by the vigilance of the enemy. The chase lasted till the 27th of July, when an alteration of wind and weather brought the fleets so near each other that it was no longer in their power to decline an engagement. Both were now on the same tack: had they so remained, the British fleet, on coming up with the French, would have had an opportunity of a fair engagement; but this was a matter quite contrary to the wishes of the French admiral. Instead of receiving the British in this position, as soon as he found that an action must ensue, he put his ships on the contrary tack, that, sailing in opposite directions, they might only fire at each other as they passed. the fire of the British ships, however was universal, till they came close up to the enemy, and were sure of doing execution. In this manner they all passed close alongside each other in

opposite directions, making a heavy and destructive fire; when, the centre division of the British line having passed the rearmost ships of the enemy, the first care of the admiral was to effect a renewal of the engagement. Sir Robert Harland, with some ships of his division, had already tacked, and stood towa ds the French; but some of the fleet were dropped to leeward, and repairing the damages they had received in the action. As soon as it was practicable, however, the Victory wore, and steered again upon the enemy. The other ships not having recovered their stations near enough to support each other on a renewal of action, in order to collect them more readily for that purpose, he made the signal for the line of battle ahead. It was now 3 P. M., but the ships of the British fleet had not sufficiently regained their stations to engage. Sir Hugh Palliser, who commanded the rear during the time of action, came of course the last out of it; and, in consequence of the admiral's signal for the line, was to have led the van in renewing the fight; but his division was upon a contrary tack and was entirely out of the line. Several signals for calling them back, and some verbal orders were mistaken, until it was too late to recommence any operations against the enemy. In the night the French took the determination to put it wholly out of the power of the British fleet to attack them a second time, and retired with all speed towards Brest. The killed and wounded on board the British fleet, in this action, amounted to somewhat more than 500; but the French, it has been asserted, lost 3000. The event of the engagement, however, became an object of very severe criticism; and complaints were made, that, through the bad conduct of the blue division, an opportunity had been lost of gaining a complete victory over the French. This induced Sir Hugh Palliser to apply to admiral Keppel for a justification of his conduct; and, on the rejection of this demand, Sir Hugh published in one of the daily papers a variety of circumstances, reflecting severely on the conduct of the admiral himself. The latter now declared to the admiralty, that unless Sir Hugh Palliser should explain this attack, to his satisfaction, he could not, consistently with his reputation, ever act conjointly with him; and, the altercation happening just before the meeting of parliament, it was of course noticed when it met.

In the house of peers an enquiry was demanded into the conduct of the commanders of the fleet on the 27th of July; and in the commons it was urged, that, as admiral Keppel had expressed a public refusal to serve in conjunction with Sir Hugh Palliser, the cause of such a declaration ought to be investigated. Both these commanders being present in the house on this occasion, spoke to the point in question. The issue was, that a motion was made for an address to the crown to bring Sir Hugh Palliser to trial, for his behaviour in the late engagement with the French fleet. Sir Hugh, however, now astonished the house with the information, that he had already demanded and obtained a court-martial to sit on admiral Keppel. The dissatisfaction that was excited upon this occasion, among the upper classes in the navy, appeared in a memorial presented to the king by twelve of the oldest and most distinguished admirals, at the head of whom was lord Hawke. The conduct of Sir Hugh Palliser was therein condemned without reserve: and, that of the admiralty itself was severely censured, as having established a precedent pregnant with the most ruinous consequences to the naval service of the kingdom. By the measure it had now adopted, that Board had submitted to become the instrument of any individual, who might be prompted by iniquitous motives to deprive the navy of its best and highest officers. It was a destructive violation, they said, of all order and discipline in the navy, to permit and countenance long concealed, and afterwards precipitately adopted, charges and recriminatory accusations of subordinate officers against their commanders in chief. It was no less improper and scandalous, to suffer men at once in high civil office, and in subordinate command, previous to their making such accusations, to attempt to corrupt the judgment of the public, by publishing libels on their officers in a common newspaper. Such was the public sympathy in this affair that no business of consequence was agitated in either of the houses of parliament while the trial continued. It began upon the 7th of January 1779, and lasted till the 11th of February; the court, after a long and accurate investigation of every species of evidence that could be produced, acquitting admiral Keppel of all the charges that had been brought against him. He was declared to have acted the part of a judicious, brave, and experienced officer; and the accusation was severely condemned: both houses of parliament voted him their thanks for his eminent services, and the whole nation rejoiced at his triumph.

The conduct of those who presided at the admiralty board was now watched with great jealousy; and a number of facts were cited, to prove that for many years past it had been highly reprehensible. The debates were uncommonly violent; and a resolution to condemn the measures of the admiralty was lost only by a majority of thirty-four. Administration, however, still kept their ground; lord Howe declared his resolution to relinquish the service while it continued under the direction of its present managers: his resignation was followed by that of Sir Robert Harland, Sir John Lindsay, and several others; nay, so general was the dislike to the service become, that no fewer than twenty captains of the first distinction proposed to go in a body to resign their commissions; and were prevented only by the great occasion they saw there was for their services. This produced a direct attack upon lord Sandwich, then first lord of the admiralty; and an enquiry into the cause of our want of success in the American war was insisted upon by lord and general Howe, whose conduct had been also much reflected upon. From the evidence of lord Cornwallis, and other officers of high rank, it appeared that the forces sent to America were not at any time sufficient to reduce it; that the Americans were almost universally unfriendly to the British cause; and that the nature of the country was such, that the conquest of it must be excessively

difficult. It appeared also, that the camp of the Americans on Long Island was so strong, that it could not have been attacked with any probability of success, after their defeat in 1776. In every instance, therefore, general Howe's conduct was shown to have been most judicious. General Burgoyne next insisted upon an examination of his conduct; which indeed had been so unmercifully censured, that even the ministers began to think he ought to be allowed to vindicate himself, which he did successfully. It appeared, on these investigations, that the Americans, far from being the contemptible poltroons they had been called, were intrepid and resolute, and fully equal to the defence of their own country.

On the resignation of admiral Keppel, the command of the channel fleet was bestowed on Sir Charles Hardy, a brave and experienced officer, but now much advanced in years. Spain had now joined France and America, in the contest with Great Britain: and various projects for the internal defence of the country were laid before parliament. The principal of these were the raising of volunteer companies to be added to the regiments of militia belonging to the counties, and augmenting the number of militia. The latter was judged unadvisable, on account of the necessity there would be to send a great number of regular forces out of the kingdom, which would require new supplies of recruits; and the increase of the militia might prove detrimental to the recruiting service. The spirit and magnanimity displayed on this occasion, however, did the highest honor to the national character, and fully justified the opinion generally entertained of its opulence and valor. All parts of the kingdom seemed actuated by a laudable zeal to concur in every measure necessary for its defence; large sums were subscribed by people of rank and affluence; and companies were raised, and regiments formed, with such alacrity as quickly banished all apprehensions for the safety of the kingdom. On the other hand, the French, now thinking themselves secure of victory by the accession of Spain to their cause, began to extend their plans of conquest. A squadron was fitted out under the command of the marquis de Vaudreuil, destined to reinforce the fleet commanded by D'Estaing. But, before its proceeding thither, an attack was made on the British settlements on the rivers Senegal and Gambia in Africa. These were easily conquered; and, on this occasion, the French quitted their own island of Goree, which was very soon after taken possession of by Sir Edward Hughes in his way to the East Indies. These unimportant and distant conquests, however, being insufficient to produce any great eclat, it was resolved to strike a blow nearer home, by the conquest of Jersey and Guernsey. An attempt was accordingly made; but with so little success, that not a single man could be disembarked on the island they intended to conquer. The enterprize, however, proved indirectly of great service to the cause of America. A fleet of 400 merchantmen and transports were at that time on the point of sailing for New York, under the conduct of admiral Arbuthnot; but that officer, being informed of the attack on Jersey, thought it his duty to come to the assistance of the island rather than proceed on his voyage. This delay was followed by another, occasioned by bad weather; so that the fleet, which was laden with warlike stores and necessaries, did not arrive till the end of August, and several important enterprises projected by Sir Henry Clinton were of course laid aside. The French, in the mean time, determined to make a second attempt on Jersey; but their squadron, being attacked by another under Sir James Wallace, was driven ashore in a small bay on the coast of Normandy. Thither they were pursued by the British commander; who took a large frigate of thirty-four guns, with two rich prizes, and burned two other frigates and several other vessels. Thus disappointed, they next formed a project of invading Great Britain itself; and, their preparations for it were so formidable, that they excited considerable alarm. The best troops in the French service marched down to the coasts of the channel, transports were provided in great numbers; a junction was formed betwixt the French and Spanish fleets, in spite of the endeavours used on the part of the British to prevent it; and the allies made their appearance in the British seas with upwards of sixty ships of the line, besides a vast number of frigates and other armed vessels. All this formidable apparatus, however, ended in nothing more than the capture of a single ship, the Ardent of sixty-four guns: which they took off Plymouth. All ranks, however, were now weary of the American war; and, even those who had formerly been the most sanguine, in defence of coercive measures, began to be convinced of their inutility.

The enormous expenses already incurred, and still necessary to be incurred, for the carrying on of the war, occasioned such a general alarm, that it was no longer possible to refuse compliance with some scheme of economy, or at least giving it a patient hearing. The duke of Richmond proposed that the crown should set the example, and moved for an address to this purpose; but the motion was lost by seventy-seven to thirty-six. The earl of Shelburne next undertook the discussion of the subject; and, in a most elaborate speech, compared the expenses of former times with the present. He moved, that the expenditure of those vast sums annually sunk in extraordinaries should be brought under some control; and that to extend the public expenses beyond the sums granted by parliament, was an invasion of its peculiar and exclusive rights. Though this motion and some others of a similar tendency were rejected, the minds of the people were far from being conciliated. The opinion began to be general, that ministers exercised an unconstitutional influence over the representatives, and that this influence was very much augmented within these few years; and it was supposed by many, that nothing short of a change in the constitution of parliament could remedy the evil complained of. To this purpose the famous York petition was framed in December, 1779; in which it was stated, that, in consequence of the war, the public debt was greatly augmented, taxes increased, and trade and manu-

factures much affected. The profusion attending the war was complained of; and parliament was requested, previous to the raising of any new taxes, to enquire into, and correct the abuse of expenditure in the public money; to reduce exorbitant emoluments, abolish sinecure places and unmerited pensions, and apply the produce to the exigencies of the state. This petition was followed by others of a similar kind from twenty-seven of the principal counties and most of the large towns in England. The ministry, however, continued firm and undaunted. Previous to the taking any of the petitions into consideration, they insisted on going through the business of the supply, by determining the ways and means; nor did either the number of English petitions, or an additional one from the island of Jamaica setting forth the extreme danger that island was in, make them alter their resolution. At last, in the beginning of February 1780, a plan was brought forward by Mr. Burke, for securing the independency of parliament, and introducing economy into the various departments of government. This plan, among other things, proposed the abolition of the offices of treasurer, comptroller, and cofferer of the household; treasurer of the chamber, master of the household, the board of green cloth, with several other places under the steward of the household; and removing the great wardrobe, the jewel office, the robes, board of works, and the civil branch of the board of ordnance. Other reformations were also proposed; but though the temper of the times obliged the minister to admit the bills, and even to pretend an approbation of the plan, he meant nothing less than to admit it in its full extent, or indeed in any part, if it could be prevented. When the plan, therefore, which he had approved in general, came to be particularly considered, he was found to be determined against every part of it. The general temper of the people, without doors, however, seemed now to have affected many of the members of parliament, and made them desert their old standard. An economical plan, proposed in the house of lords by the duke of Shelburne, was rejected only by a majority of 101 to fifty-five. This was the strongest opposition that had appeared in that house for many years; but in the lower house the strength of ministers was still more on the decline. The first proposition in Mr. Burke's plan was to abolish the office of secretary of state for the colonies; and the utmost efforts of ministry could preserve this office only by a majority of 208 to 201. The board of trade was abolished by 207 to 198; but this was the only defeat sustained by ministry at this time; all the rest of the plan being rejected, excepting only one clause, by which it was determined that the offices of lieutenant and ensign, &c., belonging to the yeomen of the guards, should not any longer be sold, but given to officers in the army and navy on half pay, and of fifteen years standing in their respective lines of service. Administration, however, had a still greater defeat to meet with than what they had experienced in the abolition of the board of trade. The 6th of April 1780 was the day appointed for taking into consideration the numerous petitions, from half the kingdom of England. They were introduced by Mr. Dunning; who, in a very elaborate speech, set forth the many attempts that had been made to introduce reformation and economy into the plans of government. These had been defeated by ministerial artifice, or overthrown by mere dint of numbers: he concluded therefore, and moved as a resolution of the house, That the influence of the crown had increased, was increasing, and ought to be diminished. This motion being carried, after a long and violent debate, he next moved, that the house of commons was as competent to examine into and correct abuses in the expenditure of the civil list, as in any other branch of the public revenue. To this another was added by Mr. Thomas Pitt, that it was the duty of the house to provide an immediate and effectual redress of the abuses complained of in the petitions. The ministry now requested that nothing farther might be done that night: but such was the temper of the house, that both these motions were carried without a division; after which they were read a first and second time, and agreed to without a division.

Ministry had never received such a complete defeat, nor ever had been treated with so much asperity of language. The news of the proceedings of this day were received by the people at large with as much joy as if the most complete victory over a foreign enemy had been announced. Opposition, however, though masters of the field at present, did not imagine, they had obtained any permanent victory, and therefore resolved to make the most of the advantages they had gained. It was moved by Mr. Dunning, at the next meeting, that to ascertain the independence of parliament, and remove all suspicions of its being under undue influence, there should, every seven days after the meeting of parliament, be laid before that house an account of all the sums issued out of the civil list, or any other branch of the revenue, since the last recess, in favour of any of its members. This passed with little difficulty; but when he moved that the treasurers of the chamber and household, the cofferer, comptroller, and master of the household, with the clerks of the green cloth, and their deputies, should be excluded from having seats in the house, a warm debate ensued; and the motion was carried only by 215 to 213. This was the last triumph of the popular party; their next motion, for the exclusion of revenue officers, being thrown out by 224 against 195. A last effort was made by Mr. Dunning's proposal of an address to the throne against proroguing or dissolving the parliament, until measures had been taken to prevent the improper influence complained of in the petitions. On this occasion the debates were long and violent; but the motion was lost by 254 against 203. Ministry would gladly have screened their friends from the vengeance of opposition: alleging the lateness of the hour, it being then past midnight. The speaker of the house, however, perceiving Mr. Fox about to rise, insisted that the house should remain sitting; and thus the deserters from the popular party were condemned to hear their conduct set forth in such terms as perhaps were never applied, on

any other occasion, to members of the British senate. This last victory of administration confirmed the dissatisfaction and ill opinion which the people had conceived of the majority of their representatives. It was in the height of that ill will which the conduct of parliament had created in the multitude, that those discontents broke out which were so near involving the kingdom in universal desolation.

The hardships, under which individuals professing the Roman Catholic persuasion had labored for many years in England, had lately awakened the consideration of the liberal minded. The inutility and impropriety of persecuting people from whom no danger was apprehended, and who were not suspected of disaffection to the civil constitution of this country, induced several persons of rank to undertake the procuring them relief; and the calamities of the times had afforded the English Roman Catholics a very proper occasion to manifest their attachment to government. They presented a most loyal and dutiful address to the king, containing the strongest assurances of affection and fidelity to his person and the civil government of this country. 'Our exclusion,' said they, 'from many of the benefits of that constitution, has not diminished our reverence for it. We behold with satisfaction the felicity of our fellow subjects; and we partake of the general prosperity which results from an institution so full of wisdom. We have patiently submitted to such restrictions and discouragements as the legislature thought expedient. We have thankfully received such relaxations of the rigor of the laws, as the mildness of an enlightened age, and the benignity of the British government, have gradually produced; and we submissively wait, without presuming to suggest either time or measure, for such other indulgence as those happy causes cannot fail in their own season to effect.' This address was presented to the king on the 1st of May 1778, and signed by the duke of Norfolk, the earls of Surrey and Shrewsbury, the lords Stourton, Petre, Arundel, Dormer, Teynham, Clifford, and Linton; and by 163 commoners of rank and fortune. The only obstacle was, the difficulty of overcoming the prejudices of the lower classes, who would probably condemn the indulgence shown to the people of a persuasion, which, when powerful, had been extremely intolerant, and which they therefore had been taught to look upon with horror and detestation. About the middle of May Sir George Saville made a motion for the repeal of some penalties enacted against them. He grounded his motion, on the necessity of vindicating the honor and asserting the true principles of the Protestant religion, of which the peculiar merit was to admit of no persecution. It ill became the professors of such a religion to be guilty of that intolerance with which they reproach others. The statutes he meant to repeal were such as gave occasion to deeds that were a disgrace to human nature, by inciting relations to divest themselves of the feelings of humanity, and by encouraging the rapacity of informers. He represented the address above quoted as a full proof of the loyal disposition of the Roman Catholics, and as an unfeigned testimony of the soundness of their political principles. In order, however, to silence the objections of those who might suspect them of duplicity, a test was proposed of so binding and solemn a nature, that no man could be supposed to imagine that any authority could annul its efficacy.

The pains and penalties of the statutes to be repealed were laid before the house by Mr. Dunning. By these statutes it was made felony in a foreign clergyman of the Roman communion, and high treason in one that was a native of this kingdom, to teach the doctrines or perform divine service according to the rites of that church: the estates of persons educated abroad in that persuasion were forfeited to the next Protestant heir; a son or any other nearest relation, being a Protestant, was empowered to take possession of his own father's, or nearest of kin's estaste, during their lives; a Roman Catholic was disabled from acquiring any legal property by purchase. The mildness of the British government did not indeed countenance the practice of the severities enacted by these statutes; but still the prospect of gain subjected every man of the Roman persuasion to the ill usage of informers; as on their evidence the magistrates were bound, however unwilling, to carry these cruel laws into execution. In consequence of these representations, the motion made in favor of the Roman Catholics was received without one dissenting voice; and a bill in conformity to its intent was brought in and passed both houses. The test or oath by which they were bound was conceived in the strongest and most expressive terms. The indulgence shown the Roman Catholics in England now encouraged those of the same persuasion in Scotland to hope for a similar relief. Several gentlemen of that nation of great rank and character, and who were members of parliament, expressed their warmest wishes that it should be extended to their country; and declared their intention to bring in a bill for that purpose the following session. The design was approved by the general assembly of the church of Scotland; who rejected, by a majority of no less than 1000, a remonstrance that had been proposed against it. In consequence of these flattering appearances, a petition was prepared for parliament, in behalf of the Roman Catholics in Scotland.

But these expectations were soon damped. A pamphlet was published against the doctrine and professors of the Popish religion, which represented them as the common foes to mankind and the disturbers of all states. The opposition was at first chiefly conducted by some persons at Edinburgh, who assumed the title of a committee of correspondence for the Protestant interest; and under that denomination corresponded with all those who coincided with their opinions, and who formed a very large proportion of the people in Scotland. The persons who made up this committee, however, acted from no mean or mercenary views; they aimed only at the preservation of the Protestant religion, and the liberties of their country; both which they conceived were in danger, from the indulgence of government to individuals of the Roman Catholic persuasion. Actuated by these ideas,

they exerted themselves with so much activity, that the principal gentlemen of the Catholic persuasion thought it requisite, for their safety, to convey an intimation to the British ministry, that they were desirous to drop the application they had proposed to make. They published also, in the newspapers, the representation they had made to ministry; hoping thereby to convince the public, that they were sincerely desirous to remove any cause of dissatisfaction on their own account, and to submit to any inconveniency sooner than occasion disturbance. But matters were now gone too far to be conciliated by any means. On the 2d of February, 1779, the populace of Edinburgh attacked and set on fire a house, just built by a Roman Catholic bishop, which was intended to contain a place of worship. They next day gutted another house in Blackfriars' Wynd, that had a popish chapel attached; after which they proceeded to vent their resentment on several individuals of that persuasion, by destroying their property. The next objects of their vengeance were those who had patronised the Roman Catholics. They beset the houses of principal Robertson and Mr. Crosby; but the friends of both came to their assistance in such numbers, and so well prepared, that they did not dare to exercise the violence they had premeditated: and this put an end to the attempts of the mob at Edinburgh. But the spirit of dissatisfaction at the indulgence extended to the Roman Catholics remained in great force in England: and a society was formed in London, which took the title of the Protestant Association, of which lord George Gordon, who had been conspicuous in this business in Scotland, was elected president. It now prepared to act in a decisive manner against the resolutions of the legislature. On the 29th of May, 1780, the associates held a meeting to settle in what manner they should present a petition to the house of commons against the repeal of the penal statutes. A long speech was made on this occasion by their president, who represented the Romish persuasion as gaining ground rapidly in this country; that the only method of stopping its progress was to go up with a spirited remonstrance to their representatives, and to tell them, in plain and resolute terms, that they were determined to preserve their religious freedom with their lives, &c. This harangue being received with the loudest applause, he moved that the whole body of the association should meet on the 2d of June, in St. George's Fields, at ten o'clock in the morning, to accompany him to the house of commons on the delivery of the petition. This being assented to, he informed them, that if he found himself attended by fewer than 20,000, he would not present the petition. He then directed them to form themselves into four divisions; the first, second, and third, to consist of those who belonged to the City, Westminster, and Southwark; the fourth of the Scotch residents in London. They were, by way of distinction, to wear blue cockades in their hats. Three days previous to the presentation of the petition, he gave notice of it to the house, and of the manner in which it was to be presented. On the 2d of June, about 50,000 or 60,000 of the populace assembled in St. George's Fields. They drew up in four separate divisions, as had been agreed, and proceeded to Westminster, with lord George Gordon at their head. An immense roll of parchment was carried before them, containing the petition. On their arrival they compelled several members of both houses to put blue cockades in their hats, and call out 'No Popery.' They forced them to take an oath that they would vote for the repeal of the popery act, as they styled it, and treated others with great indignity, posting themselves in all the avenues to both houses; they had even the audacity more than once to endeavour to break open the doors. Several members of the house of lords narrowly escaped with their lives. During these disturbances, lord George Gordon moved for leave to bring up the petition. This was granted; but, when he proposed it should be taken into immediate consideration, it was strenuously opposed by almost the whole house. Enraged at this, he came out several times to the people during the debates, acquainting them how averse the house appeared from granting their petition, and naming particularly those who had spoken against it. Several members expostulated with him in the warmest terms on this unjustifiable conduct; and one of his relations, colonel Gordon, threatened to run him through the moment any of the rioters should force their way into the house. After some hours, during which the house could carry on none of its deliberations with regularity, the members were relieved by the arrival of a party of the guards. Order being restored, the business of the petition was resumed; when lord George Gordon told them it had been signed by nearly 120,000 British Protestant subjects. He therefore insisted that the petition should be considered without delay. But the commons continued immovable in their determination. Of 200 members, then present in the house, six only voted for it. In the mean time the mob had dispersed themselves into various parts of the metropolis, where they demolished two Romish chapels belonging to foreign ministers; and openly vented the most terrible menaces against all people of that persuasion. On the 4th of June they assembled in great numbers in the eastern parts of London; and attacked the chapels and houses of the Roman Catholics, stripping them of their contents, which they threw into the street, or committed to the flames. They renewed their outrages on the following day, destroying several Romish chapels, and demolishing the house of Sir George Saville, in resentment of his having brought into parliament the bill in favor of the Catholics. Next day both houses met as usual; but, finding that no business could be done, they adjourned to the 19th. During the 6th and 7th of June, the rioters were absolute masters of the metropolis and its environs. Some of those who had been concerned in the demolition of the chapels belonging to foreign ministers, having been seized and sent to Newgate, the mob collected before that prison, and demanded their immediate release. On being refused, they proceeded to throw firebrands and all kinds of combustibles into the keeper's house;

which communicated to the prison; so that this immense pile was soon in flames. In this scene of confusion the prisoners, amounting to about 300, were all released; among whom were several under sentence of death. The mob set fire, in the same manner, to the King's Bench and Fleet prisons, and to a number of houses belonging to Roman Catholics. The terror excited by these incendiaries was such, that most people hung out of their windows pieces of blue silk, the color assumed by the rioters; and chalked on their doors and shutters the words, 'No Popery.' The night of the 7th of June concluded these horrors. No less than thirty-six different conflagrations were counted at the same time. The bank had been threatened, and was twice assailed; but happily was too well guarded for their attempts. In the evening, large bodies of troops arrived from all parts, and came in time to put a stop to the progress of the rioters. The king having, under his sign manual, directed that the troops should not scruple to act, they dispersed them every where; but it was not until the afternoon of the 8th, that the people began to recover from their consternation. During great part of the day, the disorders of the preceding night had created so terrible an alarm, that the shops were almost universally shut. The melancholy effects of misguided zeal were not, however, confined to London. The outrageous disposition of the populace was preparing to act the like horrid scenes in other parts of England. The mob rose in Hull, Bristol, and Bath; but, through the timely interposition of the magistracy, these places were saved from their fury.

On the subsiding of this violent commotion, lord George Gordon was arrested, and committed close prisoner to the Tower, and on the 19th of June both houses met according to adjournment. The speech from the throne, acquainting them with the measures that had been taken in consequence of the disturbances, and assuring them of the utmost readiness to concur in whatever could contribute to the safety and maintenance of the laws and liberties of the people, was highly approved; but the conduct of administration was severely censured, and charged with unpardonable neglect for not calling forth the civil power, and employing the military in due time. Ministry excused themselves, from the want of sufficient strength to answer all the demands of assistance that were made during the riots, and the absolute impossibility of suppressing them till the arrival of troops from the country. The various petitions were now taken into consideration, that had been presented for the repeal of the act which had occasioned the riots; but the house continued in the same mind. Nevertheless it was thought proper to yield somewhat to the prejudices of the people, by passing a bill for preventing persons of the Popish persuasion from teaching or educating the children of Protestants; but this was afterwards thrown out by the lords. Nothing could have happened more opportunely for the ministry than these riots; for such was the terror occasioned by them, that the ardor which had appeared for promoting popular meetings, and opposing the measures of government, was in a great degree suppressed. Even the country meetings were represented as having a tendency, like the Protestant association, to bring on insurrections and rebellions. Many began to consider all popular meetings as extremely dangerous; and, among the commercial and monied people, there was no small number who were so panic struck, that all attention to the principles of the constitution was over-ruled by their extreme anxiety for the preservation of their property. Indeed the friends of the association did not hesitate to allege, that the riots had been secretly encouraged by ministry to produce these consequences.

In the debate in the house of lords on the subject of the riots, the duke of Richmond expressed his hopes, that some of his majesty's ministers would give their lordships assurances, that the measures taken to suppress them were defensible only upon the ground of necessity: and that what was illegally done, on that ground, would be cured by an act of indemnity. Other observations were thrown out relative to the king's prerogative and military law: upon which lord Mansfield observed, that neither the king's prerogative nor military law, had any thing to do with the conduct of government, in their endeavours to quell the late outrages. All men, of all ranks, descriptions, and denominations, were bound, by their oath of allegiance, to interpose for the prevention of acts of high treason, or felony, wherever any attempts to perpetrate such crimes were made in their presence; and were criminal if they did not do it. In the whole of these proceedings, therefore, the military had not acted in their technical capacity as military, but had merely exercised their duty as members of civil society. When a body of men were convened, without proceeding to the actual perpetration of treasonable or felonious acts, then, by a clause in the riot act, the presence of the civil magistrate was necessary, before the military could interpose; and for this reason, that, as no acts of felony were committed, they could have no plea in their civil character for interfering with them. But, by the statute law of the country, it became felonious in any combination of men to persevere in that combination, after the riot act had been read by a justice of the peace; and this being done, then, and not till then, they had a constitutional reason for their interposition; namely, the privilege and duty of hindering the commission of felony, whenever they had it in their power. This being, therefore, the plain voice of the law, his lordship did not see how any prerogative of the king had been exercised, nor how military law had been established. Many persons, however, were alarmed at the dangerous precedent which the late exertions of the military afforded. Among others, Sir George Saville, in an address to his constituents some time afterwards, declared, that he considered them as 'fully, effectually, and absolutely, under the discretion and power of a military force, which was to act without waiting for the authority of the civil magistrates.' A letter written by lord Amherst to lieutenant colonel Twisleton, who commanded the troops employed in London for the suppression of the riots, and which was understood to be an order for disarm-

ing the citizens, was also much canvassed in both houses of parliament.

We now return to the operations of the war, which, notwithstanding the powerful confederacy against Great Britain, seemed to be decidedly in her favor. The Spaniards had begun their military operations by the siege of Gibraltar, but with very little success (see GIBRALTAR); and the close of the year 1779 and beginning of 1780 were attended with some considerable naval advantages to Great Britain. On the 18th December, 1779, the fleet under the command of Sir Hyde Parker in the West Indies took nine sail of French merchant ships, which, with several others, were under the convoy of some ships of war; and about the same time several other vessels were taken by his squadron. On the 8th January 1780 Sir G. B. Rodney, who had been intrusted with the command of a fleet, one object of the destination of which was the relief of Gibraltar, fell in with twenty-two sail of Spanish ships, and in a few hours the whole were taken. On the 16th he engaged, near Cape St Vincent, another Spanish fleet, of eleven ships of the line, and two frigates, under Don Juan de Langara. The Spaniards made a gallant defence; but four of their largest ships were taken, and carried into Gibraltar: viz. the Phœnix of eighty guns and 700 men, on board which was the admiral; the Minorca, of seventy guns and 600 men; the Princessa, of seventy guns and 600 men; and the Diligente of seventy guns and 600 men. Two other seventy gun ships were also taken; but one of them was driven on shore on the breakers and lost. Four ships of the line escaped, and the two frigates; and in the course of the action the St. Domingo, a Spanish ship of seventy guns, and 600 men, was blown up. The five men of war taken were remarkably fine ships. On the 20th March there was an action in the West Indies between some French and English men of war, the former under the command of M. de la Mothe Picquet, and the latter, being part of Sir Peter Parker's squadron, under that of commodore Cornwallis. The engagement was maintained on both sides with great spirit; but the French at length gave up the contest, and made the best of their way for Cape François. Admiral Rodney having arrived in the West Indies, and taken upon him the command of his majesty's ships at the Leeward Islands, an action was fought between him and the French fleet under the command of count de Guichen, on the 17th of April. The British squadron consisted of twenty ships of the line, besides frigates; and the French fleet of twenty-three ships of the line, and several frigates. The action began a little before one, and continued till about a quarter after four P. M.. Admiral Rodney was on board the Sandwich, a ninety gun ship, which beat three of the French ships out of their line, and entirely broke it. But such was at length the crippled condition of the Sandwich, and of several other ships, that it was impossible to pursue the French. The victory was, indeed, claimed on both sides; but no ship was taken on either; and the French retired to Guadaloupe. Admiral Rodney's ship, the Sandwich, had suffered so much, that for twenty-four hours she was with difficulty kept above water. Of the British there were killed in this engagement 120, and 353 were wounded. On the 15th May another action happened between the same commanders, but only a few ships were engaged, which soon separated. The fleets met a third time in an indecisive action of the 19th of the same month. In June, admiral Geary, who commanded on this station, took twelve valuable merchant ships bound from Port au Prince to Bourdeaux and other ports of France: but in August a very important and unexpected capture was made by the Spaniards. Captain Moutray, who had under his command the Ramilies of seventy-four guns and two frigates, with many vessels bound for the East and West Indies under convoy, had the misfortune to fall in with the combined fleets of France and Spain, which had sailed from Cadiz the preceding day. The Ramilies and the two frigates escaped; but the rest were so completely surrounded, that five East Indiamen were taken, and fifty merchant ships. Their cargoes were extremely valuable: and it was one of the most complete naval captures ever made. The Spaniards on this occasion behaved to their prisoners with great humanity; and made a suitable return for the generous treatment which their countrymen had experienced from admiral Rodney. As some compensation, the British took about this time Fort Omoa from the Spaniards, where upwards of 3,000,000 of dollars were gained by the victors, and, among other valuable commodities, twenty-five quintals of quicksilver, without which the Spaniards could not extract the precious metals from their ores.

And now arose a formidable confederacy of the northern powers under the title of the Armed Neutrality. Of this confederacy the late Catherine II. of Russia declared herself the head; and her plan was intimated on the 26th February 1780, in a declaration addressed to the courts of London, Versailles, and Madrid. In this declaration it was observed, that, though from the conduct of her imperial majesty, it might have been hoped, that her subjects would have been allowed peaceably to enjoy the fruits of their industry, and of the advantages belonging to all neutral nations, experience had proved the contrary; her imperial majesty's subjects had been often molested in their navigation, and retarded in their operations, by the ships and privateers of the belligerent powers. Her imperial majesty therefore declared, that she found herself under the necessity of removing those vexations which were offered to the commerce of Russia, as well as to the liberty of commerce in general, by all means compatible with her dignity and the welfare of her subjects: but before she came to any serious measures, and in order to prevent all new misunderstandings, she thought it just and equitable to expose to the eyes of all Europe the principles which she had adopted for her conduct, and which were contained in the following propositions: 1. That neutral ships should enjoy a free navigation, from port to port, and on the coasts of the belligerent powers. 2. That all effects belonging to the subjects of the belligerent powers should be looked upon as free on board such neutral ships, excepting only such

goods as were stipulated contraband. 3. Her imperial majesty, for the proper understanding of this, refers to the articles ten and eleven of her treaty of commerce with Great Britain, extending her obligations to all the other belligerent powers. In the treaty made between Great Britain and Russia in 1734, it is said, 'The subjects of either party may freely pass, repass, and trade in all countries which now are or hereafter shall be at enmity with the other of the said parties, places actually blocked up or besieged only excepted, provided they do not carry any warlike stores or ammunition to the enemy: as for all other effects, their ships, passengers, and goods, shall be free and unmolested. Cannons, mortars, or other warlike utensils, in any quantity beyond what may be necessary for the ship's provision, and may properly appertain to and be judged necessary for every man of the ship's crew, or for each passenger, shall be deemed ammunition of war; and, if any such be found, they may seize and confiscate the same according to law; but neither the vessels, passengers, nor the rest of the goods, shall be detained for that reason, or hindered from pursuing their voyage.' The same enumeration of the goods, stipulated as contraband, was given in the treaty concluded between Great Britain and Russia in 1766. 4. That, in order to determine what characterises a port blocked up, that denomination should not be granted but to such places before which there were actually a number of enemy's ships stationed near enough so as to make its entry dangerous. 5. That these principles should serve as rules in the judicial proceedings and sentences upon the legality of prizes. This declaration was communicated to the States General, now openly manifesting hostile intentions to this country, by prince Gallitzin, envoy extraordinary from the empress of Russia; and she invited them to make a common cause with her, so far as such a union might serve to protect commerce and navigation. Similar communications and invitations were also made to the courts of Copenhagen, of Stockholm, and of Lisbon, in order, it was said, that, by the united care of all the neutral maritime powers, the navigation of the neutral trading nations might be established and legalised. The king of France said in reply, 'what her imperial majesty claimed from the belligerent powers was nothing else than the rules prescribed to the French navy:' while Sweden and Denmark formally acceded to the armed neutrality proposed. The States General did the same towards the close of the year. It was now resolved, by the powers engaged in this armed neutrality, to make common cause at sea against any of the belligerent powers who should violate, with respect to neutral nations, the principles which had been laid down in the memorial of the empress

The British ministry determined, therefore, to take vengeance on the Dutch, whose ingratitude and perfidy had become evident ever since the commencement of hostilities with the Americans. On the 25th January, 1781, it was announced to the house of commons, that his majesty had been obliged to direct letters of marque and reprisal to be issued against the States General and their subjects. For the causes and motives of his conduct in this respect, he referred to a public manifesto against that republic, which he had ordered to be laid before the house. Lord North on this occasion said that the States, in open violation of treaties, had not only refused to give Great Britain that assistance which those treaties entitled her to claim when attacked by the house of Bourbon, but had also, in direct violation of the law of nations, contributed as far as they could to furnish France with warlike stores, and had also at length thought proper to countenance the magistracy of Amsterdam, in the insult which they had offered to this country, by entering into a treaty with the rebellious colonies of Great Britain, as free and independent states. By the treaty of 1678 it was stipulated, that, in case Great Britain was attacked by the house of Bourbon, she had a right to take her choice of either calling upon the States General to become parties in the war, and to attack the house of Bourbon within two months, or of requiring an aid of 6000 troops, and twenty ships of war. But, though this country had always preserved her faith with Holland, yet that republic had refused to fulfil the terms of this treaty. Lord North farther observed, that the States General had suffered Paul Jones, a Scotchman, and a pirate, acting without legal authority from any acknowledged government, to bring British ships into their ports, and to refit there, &c. Lord North added, that he lamented the necessity of a war with Holland; but it appeared to him to be an unavoidable measure; and that the only means of obtaining an honorable and a just peace, was to show ourselves capable of carrying on the war with spirit and vigor. The Dutch island of St. Eustatius was, therefore, on the 3d February 1781, summoned by admiral Rodney and general Vaughan to surrender to the arms of Great Britain; the immense property on the island was confiscated, and a sale of private effects instituted, with such circumstances of apparent rapacity, as became the subject of a warm discussion in parliament.

At this time the Dutch do not appear to have acted with their usual prudence. Notwithstanding their provoking conduct towards Britain, they had made no preparations for war: but by August, 1781, they had equipped a considerable squadron, the command of which was given to rear-admiral Zoutman. On the 5th of that month this squadron fell in with the British fleet, commanded by admiral Parker. The force commanded by the Dutch admiral consisted, according to their own account, of one ship of seventy-four, one of sixty-eight, one of sixty-four, three of fifty-four, and one of forty-four guns, besides frigates; but the English account represents the Dutch fleet as consisting of eight two-decked ships. No gun was fired on either side till they were within the distance of half musket-shot. The action then began about 8 A. M., and continued for three hours and forty minutes. Both sides fought with equal ardor, and the action terminated indecisively: the Dutch ships of war with their convoy bearing away for the Texel: and the English ships being too much disabled to follow them. A Dutch seventy-four

gun ship sunk soon after the action. In Europe the utmost efforts of France and Spain were able to produce nothing more than the annual parade of a mighty fleet in the channel; which was answered by the appearance of a British fleet so formidable that the allies never durst attack them. In the East Indies the united powers of the French, and native powers, had been conquered, and the Dutch settlements had suffered severely. In 1781, however, the British naval power in the West Indies was so greatly surpassed by that of France and Spain, that great apprehensions were entertained for our possessions. An ineffectual attempt on the island of St. Vincent was made by admiral Rodney; and an indecisive engagement took place, April 28th, 1781, between admiral Hood and the count de Grasse; the event of which, however, if not advantageous, was certainly honorable to Britain, as the French had a superiority of six ships of the line. The damage done to the British ships having obliged them to retire to Barbadoes to refit, the French took that opportunity to make a descent on the island of Tobago. See Tobago. Admiral Rodney had sent rear-admiral Drake with six sail of the line, three frigates, and some troops, to the assistance of the island; but they were too late. Besides the inconveniences which the British West India islands suffered in consequence of the war, it was also the misfortune of some of them to be involved in domestic disputes with their governors. This was particularly the case with Jamaica and Barbadoes; and it seemed to be a maxim with the British ministry, at this period, to pay little regard to complaints from the subjects of the empire, respecting any abuse of authority. But the great and decisive blow of the American contest, which happened this year, was the capture of lord Cornwallis with the division of the army under his command. Other events, indeed, were sufficiently mortifying. The province of West Florida had been reduced by the Spaniards; Minorca was besieged by them with an apparent impossibility of holding out; and the island of St. Eustatius was re-captured by the French. In short, every circumstance seemed to proclaim the necessity of putting an end to a war so calamitous and destructive.

Parliament met 27th of November, 1781. The ministry had received such a signal defeat in 1780 as seemed to prognosticate the ruin of their power. They had indeed afterwards acquired a majority, and the terror produced by the riots had assisted the re-establishment of their authority; to which the success at Charlestown, and other parts of America, also contributed. But the disasters of 1781 involved them in the utmost difficulty and distress. In the speech from the throne, his majesty observed, that the war was still unhappily prolonged by that restless ambition which first excited the enemies of his crown and people to commence it, and which still continued to disappoint his earnest desire and diligent exertions to restore the public tranquillity. No endeavours, he added, had been wanting on his part, to extinguish that spirit of rebellion which his enemies had found means to foment and maintain in the colonies, and to restore, to his deluded subjects in America, that happy and prosperous condition which they had formerly derived from a due obedience to the laws; but the late misfortune in that quarter called loudly for the firm concurrence and assistance of parliament, to frustrate the designs of their enemies, which were equally prejudicial to the real interests of America, and to those of Great Britain. The address was vehemently opposed by Mr. Fox and Mr. Burke. The latter remarked, that if there could be a greater misfortune than had already been undergone by this kingdom, in the present disgraceful contest, it was hearing men rise up in the great assembly of the nation, to vindicate such measures. If the ministry and the parliament were not to be taught by experience; if neither calamities could make them feel, nor the voice of God make them wise, what had this fallen and undone country to hope for! If any thing could tend to deject the people of England, to make them despair of their situation, and resign themselves to their fate, it must be to receive information that their ministers, after all that had been suffered, were yet determined to go on with the American war. A battle might be lost, an enterprise might miscarry, an island might be captured, an army might capitulate in the best of causes, and even under a system of vigor and foresight; because the battle, after all the wisdom and bravery of man, was in the hands of heaven; and if either, or all of these calamities, had happened in a good cause, and under the auspices of a vigilant administration, a brave people would not despair. But it was not so in the present case. Amidst all their sufferings, and their misfortunes, they saw nothing so distressing as the weakness or wickedness of their ministers. They seemed still determined to go on, without plan, and without foresight, in this war of calamities; for every thing that happened in it was a calamity. He considered them all alike, victories and defeats; towns taken and towns evacuated; new generals appointed, and old generals recalled; they were all alike calamities in his eyes, for they all spurred us on to this fatal business. Victories gave us hopes, defeats made us desperate, and both instigated us to go on. They were, therefore, both calamities; and the king's speech was the greatest calamity of all; for the king's speech showed us the disposition of the ministers: and this disposition was not to retreat an inch; but to goon, to plunge us deeper, to make our situation more disgraceful and more unhappy. The address, however, was carried by a majority of 216 to 129. In the house of peers the earl of Shelburne observed, that seven years had now elapsed since blood was first drawn in America; and, from that period to the present, the affairs of Great Britain had been continually growing worse, Of nearly 87,000 men sent to America, how few had returned! What treasures had been in vain expended! What enormous debts accumulated! The most liberal national supplies had been followed by nothing but calamities; and the whole proceedings of the ministry manifested a want of system and of intelligence. Among other instances of mis-

management, his lordship remarked that, instead of blocking up the French fleets within their own harbours, or immediately intercepting them on their putting out to sea, we had suffered them to sail far upon their expeditions to our distant settlements; and, when they had acquired this great advantage, we slowly followed their powerful armaments with inconsiderable squadrons, and scarcely ever reached the place of destination till the enterprises of the enemy were accomplished. As to the farther prosecution of the war with the least prospect of success, it was totally impossible: the nation was too much exhausted both of men and money; recruits were not to be procured for the army; and, if we had the best first lord of the admiralty, and the ablest board that ever sat, it was impossible to provide for all the distant services of so extensive a war. The reason was obvious. The fine navy that belonged to Great Britain at the conclusion of last war, had been suffered to rot and moulder away; while France and Spain had recruited and repaired their marine during the whole period of the peace. The house at length divided on an amendment of lord Shelburne's, which was rejected by a majority of seventy-five to thirty-one. A short protest against the address was entered by the duke of Richmond, the marquis of Rockingham, and earl Fitzwilliam; in which they declared that they dissented, 'for reasons too often urged in vain for the last seven years, against the ruinous prosecution of the unjust war, carrying on by his majesty's ministers, against the people of North America, and too fatally confirmed by repeated experience, and the late disgraceful loss of a second army, to stand in need of a repetition.' Though ministers thus succeeded in carrying the addresses, they did not meet with the same success in their plan of carrying on the war. After the debate on the number of seamen, which was fixed at 100,000, for the ensuing year, Sir James Lowther moved, as a resolution of the house, 'That the war carried on with America had been ineffectual for the purposes for which it was undertaken; and that all farther attempts to reduce that continent by force of arms would be in vain, and must be injurious to this country, by weakening her powers to resist her ancient and confederated enemies;' which was very ably supported, though rejected by a majority of 220 to 179. This, however, was a majority in which the ministry had little reason to exult; as it was sufficiently apparent, from the numbers who voted against them, that the uninfluenced sense of that house was clearly and decisively against any farther prosecution of the American war. Other arguments against it were urged in the debate on the army estimates. On the 14th December the secretary of war informed the house, that the whole force of the army, including the militia, required for the service of 1782, would amount to 186,220 men, and for this force the parliament had to provide. The sum required for these troops for pay, clothing, and other articles, amounted to £4,220,000. This military force exceeded that of the last year by 4074 men; and the expense was consequently greater by £29,067 15*s*. The increase was occasioned by the greater number of troops already sent, or then going, to the East Indies. But the expense of those troops was to be reimbursed by the East India company. After some farther statements, relative to the military force of the kingdom and its expense, had been made by the secretary at war, colonel Barre rose, and with great vehemence declared, that the estimates of the army, which were laid before that house, were scandalous and evasive. There was a much greater number of non-effective men than were stated in the estimates. In fact, they amounted to a fifth part of the army. The house should also recollect, that the estimates lying on the table did not compose the whole of the expenses of the army; for extraordinaries of several millions were yet to come. Neither were the men under the several descriptions given by the secretary at war the whole number of military force employed. Other troops were employed solely at the discretion of the minister, and paid irregularly and unconstitutionally, without the assent or knowledge of the legislature; particularly the provincial corps in America, amounting to 9000 men in actual service, the statement of which force, though it had been called for from year to year, was never brought into the estimates. Lord George Germaine said, that the reason why the provincial corps had not been included in the estimates was, that some share of the public money might be spared, by avoiding to vote an establishment for these troops. They were raised and paid in a manner by much the most economical for the nation. They were solely under the management of the commander in chief: and an officer, called the inspector-general of the provincial corps, regularly took care to muster them from time to time. He also informed the house that the ministry were unanimously of opinion that, considering the present situation of affairs, and the misfortunes of the war, it would not be right to continue any longer the plan on which it had hitherto been conducted; and therefore that a fresh army would not be sent to supply the place of that captured at York-town under earl Cornwallis. General Conway declared that he entirely disapproved of a continuance of the American war in any form, as he wished that it might totally cease. He eagerly desired the recal of our fleets and armies, and was anxious for an entire and immediate prevention of those calamities which had almost completed the destruction of the empire. He considered an avowal of the independence of America as a severe misfortune, and a debasing stroke against Great Britain; but of the two evils he would choose the least, and he would submit to the independence of America. In short, he would almost yield to any circumstance whatsoever, rather than persist a day longer in the prosecution of so pernicious a war. Ideas had been started relative to a war of posts, among which New York had been particularly mentioned. But on what military authority did the ministry presume to think that New York was tenable? What garrison would be able to maintain it? The diversity of military opinions given on this subject served rather to alarm than to convince. To secure New York, the possession of Long

Island, which is 100 miles in length, is absolutely necessary; and it is well known that Sir Henry Clinton, with all his troops, did not consider himself as secure. Notwithstanding these and other arguments, however, the question was carried in favor of ministry by a considerable majority, and the supplies were voted.

Besides the grand question, for and against the continuance of the American war, several other matters of smaller moment were agitated this session; particularly the affair of St. Eustatius, an enquiry into the state of the navy, and into the causes, generally, of our bad success in the American war. A motion for censuring lord Sandwich was lost only by 236 to 217; and so general did the desire of a change of administration now appear, that it excited no small degree of surprise that the present ministers should retain their places. Nothing could set in a more striking point of view the detestation in which they were held, than the extreme aversion shown at admitting lord George Germaine to the dignity of the peerage. On this occasion his conduct at Minden was again investigated; and when he had taken his seat in the house, under the title of lord viscount Sackville, a protest was entered, signed by nine peers, in which the sentence and the public orders against him were particularly stated; and in which they declared, that they 'could not look upon the raising to the peerage a person so circumstanced, in any other light than as a measure fatal to the interests, as well as to the glory of the crown, and to the dignity of that house; insulting to the memory of the late sovereign, and likewise to every surviving branch of the illustrious house of Brunswick; repugnant to every principle of military discipline, and directly contrary to the maintenance of the honor of that house, and to that honor which has for ages been the glorious characteristic of the British nation, and which, as far as could depend on them, they found themselves called upon, not more by duty than inclination, to transmit pure and unsullied to posterity.' On the 22d of February, a motion was made in the house of commons by general Conway, 'That an humble address be presented, earnestly imploring his majesty, that, taking into his royal consideration the many and great calamities which had attended the present unfortunate war, and the heavy burdens thereby brought on his loyal and affectionate people, he would be graciously pleased to listen to the humble prayer and advice of his faithful commons, that the war on the continent of North America might no longer be pursued for the impracticable purpose of reducing that country to obedience by force; and expressing their hope that the earnest desire and diligent exertion to restore the public tranquillity, of which they had received his majesty's most gracious assurances, might, by a happy reconciliation with the revolted colonies, be forwarded and made effectual; to which great end, his majesty's faithful commons would be ready most cheerfully to give their utmost assistance.' It was seconded by lord John Cavendish, who remarked, that the American war had been a war of malice and resentment, without either dignity in its conduct, probability in its object, or justice in its origin It was, however, vigorously opposed by administration, who had still sufficient strength to gain their point, though only by a single vote, the motion being rejected by 194 to 193. The increasing strength of opposition now showed that the downfal of ministry was at hand. The decision of the last question was considered as a victory gained by the former; and Mr. Fox instantly gave notice that the subject would be resumed in a few days, under another form. It was accordingly revived on the 27th of February; on which day a petition from the city of London was presented to the house, soliciting the house to interpose in such a manner as should prevent any further prosecution of the American war; after which general Conway moved, that it should be resolved, 'That it was the opinion of that house, that the farther prosecution of offensive war on the continent of North America, for the purpose of reducing the revolted colonies to obedience by force, would be the means of weakening the efforts of this country against her European enemies, and tend, under the present circumstances, dangerously to increase the mutual enmity so fatal to the interests both of Great Britain and America; and, by preventing a happy reconciliation with that country, to frustrate the earnest desire graciously expressed by his majesty to restore the blessings of public tranquillity.' In order to evade coming to any immediate determination on the question, a proposition was made by Mr. Wallace, the attorney-general, that a truce should be entered into with America; and that a bill should be prepared to enable his majesty's ministers to treat on this ground: and, under the pretence of allowing time for this measure, he moved, 'that the present debate should be adjourned for a fortnight,' The house divided upon this motion, when there appeared for it 215, and against it 234; so that there was a majority of nineteen against the ministry. General Conway's original motion was then put and carried without a division.

He immediately made another for an address to the king, in which the American war was spoken of precisely in the terms made use of in the first motion, and in which his majesty was solicited to put a stop to any further prosecution of offensive war against the colonies. This motion was agreed to; and it was also resolved, that the address should be presented on the 1st of March; when his majesty returned an answer, in which he declared, that there were no objects nearer to his heart than the ease, happiness, and prosperity of his people; that the house of commons might be assured, that, in pursuance of their advice, he should take such measures as should appear to him to be most conducive to the restoration of harmony between Great Britain and her revolted colonies, so esential to the prosperity of both; and that his efforts should be directed in the most effectual manner, against our European enemies, until such a peace could be obtained as should consist with the interests and permanent welfare of his kingdoms. This answer being not thought sufficiently explicit, it was observed by general Conway, in the house of commons, on the 4th of March, that he hoped

he should be supported by the house in his desire of securing the nation against the possibility of a doubt, that the American war was not now completely concluded. He therefore moved, 'That an humble address should be presented to his majesty, to return his majesty the thanks of that house for his gracious answer to their last address; that house being convinced, that nothing could, in the present circumstances of this country, so essentially promote those great objects of his majesty's paternal care for his people, as the measure which his faithful commons had most humbly, but earnestly recommended to his majesty.' This motion was unanimously agreed to; after which the general moved 'That, after the solemn declaration of the opinion of that house, in their humble address presented to his majesty on Friday last, and his majesty's assurance of his gracious intention, that house would consider as enemies to his majesty and this country, all those who should endeavour to frustrate his majesty's paternal care for the ease and happiness of his people, by advising, or by any means attempting, the farther prosecution of offensive war on the continent of North America, for the purpose of reducing the revolted colonies to obedience by force.' After some debate, the motion was agreed to without a division.

On the 6th of the month, after a number of papers had been read in the house of peers relative to the surrender of earl Cornwallis and the army under his command, the two following motions were made by the duke of Chandos: 1. 'That it was the opinion of that house, that the immediate cause of the capture of the army under earl Cornwallis, in Virginia, appeared to have been the want of a sufficient naval force to cover and protect the same.' 2. 'That the not covering and protecting the army under earl Cornwallis in a proper manner was highly blameable in those who advised and planned the expedition.' After some debate, the motions were rejected, upon a division, by a majority of seventy-two to thirty-seven. Thus the ministry still kept their ground, and, with the most astonishing resolution, combated the powers of opposition.

The unpopularity of lord North was now farther augmented by his proposal of some new taxes, particularly on soap, the carriage of goods, and places of entertainment. On the 15th of March, it was moved by Sir John Rous, that 'the nation could have no farther confidence in the ministers who had the conduct of public affairs.' The debate was remarkable for an argument, in the affair of America, perfectly new and unprecedented. Sir James Marriot informed the house, that though it had been frequently pretended, that the inhabitants of the colonies were not represented in the British parliament, yet the fact was otherwise: for they were actually represented. The first colonisation, by national and sovereign authority, he remarked, was the establishment of the colony of Virginia. The grants and charters made of those lands, and of all the subsequent colonies, were of one tenor, and expressed in the following terms: 'To have and to hold of the king or queen's majesty, as part and parcel of the manor of East Greenwich, within the county of Kent, reddendum, a certain rent at our castle of East Greenwich, &c.' So that the inhabitants of America were, in fact, by the nature of their tenure, represented in parliament by the knights of the shire for the county of Kent! This curious legal discovery, that the American colonies were part and parcel of the manor of East Greenwich, though delivered by the learned judge with all proper gravity and solemnity, yet excited so much merriment in the house, that it was with great difficulty, for some time, that the speaker could preserve any kind of order. Lord North endeavoured to vindicate his own administration. He affirmed, that it could not be declared with truth, by that house, that the national calamities originated from the measures of the present administration. The repeal of the American stamp act, and the passing of the declaratory law, took place before his entrance into office. As a private member of parliament, he gave his vote in favor of both; but, as a minister, he was not responsible for either. When he accepted his post, the times were scarcely less violent than the present. He approached the helm when others had deserted it; and, standing there, he had used his utmost efforts to assist his country. That the American war was just and requisite, and prosecuted for the purpose of supporting and maintaining the rights of the British legislature, was a position, for the truth of which he would ever contend. As to peace, he not only wished most earnestly for it, but also for the formation of such a ministry as might at once prove welcome to the country, and with unanimous cordiality co-operate for the welfare and the honor of the state. It was not an attachment to the honors and emoluments of office which had kept him so long in place; and he should disdain to throw impediments in the way of any honorable and salutary coalition of parties, though for the adjustment of an administration from which he might perceive himself excluded. The house at length divided upon the question, when there appeared for it 227, and against it 236; so that there was a majority of nine in favor of administration. Notwithstanding this seemingly favorable determination, it was so well known that the ministry could not stand their ground, that, four days after, a similar motion to that made by Sir John Rous, was to have been made by the earl of Surrey; but, when his lordship was about to rise for that purpose, lord North addressed himself to the speaker, and endeavoured to gain the attention of the house. This occasioned some altercation, many members insisting, that the earl of Surrey ought to be heard first. But lord North observed, that as he understood the motion to be made by the noble earl was similar to that made a few days before, and the object of which was the removal of the ministers, he had such information to communicate to the house, as must, he conceived, render any such motion unnecessary. He could with authority assure the house, that his majesty had come to a full determination to change his ministers. Indeed, those persons who had for some time conducted the public affairs were no longer his majesty's ministers

They were not now to be considered as men holding the reins of government, and transacting measures of state, but merely remaining to do their official duty, till other ministers were appointed. The sooner these new ministers were appointed, his lordship declared, that, in his opinion, the better it would be for the public business, and the general interests of the nation. He returned thanks to the house for the many instances of favor and indulgence which he had received from them during the course of his administration; and he declared, that he considered himself as responsible, in all senses of the word, for every circumstance of his ministerial conduct, and that he should be ready to answer to his country whenever he should be called upon for that purpose.

The earl of Surrey informed the house, that the motion which he intended to have made was designed to declare to the nation, and to all Europe, that the ministry were not dismissed because they wanted to avoid the fatigues of office, but because the parliament had totally withdrawn from them their good opinion and their confidence, and were determined no longer to permit the perpetration of those violent abuses of their trust, to which, with impunity, and to the disgrace and detriment of the state, they had for such a length of time proceeded. His lordship, however, in consequence of the declaration of lord North, waived his intended motion; and, after some farther debate, the house adjourned.

Thus an end was put to an administration which had for so long been obnoxious to a great part of the nation, and whose removal contributed very much to allay those dangerous ferments by which every part of the British dominions had been agitated. Peace now became as much the object of ministry as war had been formerly. Before we proceed to any account of the negociations for that desirable event, it is necessary to take notice of those military events which disposed the other belligerent powers to an accommodation. The disaster of lord Cornwallis had produced a sincere desire of being at peace with America: but that could not be accomplished without making peace with France also; and that power was haughty and elated with success. Minorca had now fallen into the hands of the Spaniards: and though the capture of a few miserable invalids, attended with such extreme difficulty as the Spaniards experienced (see MINORCA), ought rather to have intimidated them than otherwise, they projected the most important further conquests Nothing less than the reduction of the British West India Islands became the object of the allies; and there was too much reason to suppose that this object was within their reach. In the beginning of 1782 the islands of Nevis and St. Christopher were obliged to surrender to the French admiral, and the marquis de Bouille. Jamaica was marked out as the next victim; but an end of all these aspiring hopes was fast approaching. The advantages hitherto gained by the French in their naval engagements with the British fleet, had often proceeded from their keeping at a great distance during the time of action, and from their good fortune and dexterity in gaining the wind. At last the French admiral, De Grasse, determined, after an indecisive action on the 9th of April 1782, to stand a close engagement with his formidable antagonist Rodney. This took place on the 12th of April, off the island of Dominica. The British fleet consisted of thirty-seven ships of the line, and the French of thirty-four. The action commenced at seven o'clock, A.M. and contined with unremitting fury till half past six P.M. It is said that no other signal was made by the admiral but the general one for action, and that for close fight. Sir G. Rodney was on board the Formidable, a ship of ninety guns; and the count De Grasse was on board the Ville de Paris, a ship of 110 guns, which was a present to the French king from the city of Paris. In the course of the action, the Formidable fired nearly eighty broadsides; and, for three hours, the admiral's ship was involved in so thick a cloud of smoke, that it was almost invisible to the officers and men of the rest of the fleet. The van division of the British fleet was commanded by Sir Samuel Hood, and the rear division by rear-admiral Drake. But the decisive turn on this memorable day was given by a bold manœuvre of the Formidable, which broke the French line, and threw them into confusion. The first French ship that struck was the Cæsar, a seventy-four gun ship, which, at the time, had not a foot of canvas without a shot-hole. Unfortunately, soon after she was taken possession of, she took fire by accident, and blew up. The Glorieux and the Hector, both seventy-four gun ships, were also taken by the British fleet, together with the Ardent of sixty-four guns. It was a very close and hard fought action on both sides, but the French were at length totally defeated. When the Ville de Paris struck, it was almost dark. There were 5,500 troops on board the French fleet, and the havoc among these was very great. On the 19th, a squadron, which was detached from the main fleet, under the command of Sir Samuel Hood, captured the Cato and the Jason, two French men of war of sixty-four guns each; with the Amiable of thirty-two guns, and the Ceres of eighteen. About the same time the fleet under admiral Barrington took from the French, off Ushant, the Pegase of seventy-four guns, the Actionaire of sixty-four, and ten sail of vessels under their convoy. It was universally allowed, that, in this engagement, the French, notwithstanding their defeat, behaved with the greatest valor. De Grasse himself did not surrender till 400 of his people were killed, and only himself and two others remained without a wound. The captain of the Cæsar after his ensign staff was shot away, and the ship almost battered to pieces, caused his colors to be nailed to the mast, and thus continued fighting till he was killed. The vessel, when taken, was a mere wreck. Other French officers behaved in the same manner. The valor of the British requires no encomium: it was evident from their success. The admiral was created an English peer by the title of baron Rodney, of Rodney Stoke, in the county of Somerset. Sir Samuel Hood was also created baron Hood of Catherington, in the kingdom of Ireland; and rear-admiral Drake, and capta

Affleck, were created baronets of Great Britain. The count De Grasse, after his defeat, was received on board the Barfleur man of war, and landed at Jamaica, where he was treated with great respect. After continuing there some time, he was conveyed to England, and accommodated at the Royal Hotel in Pall-Mall. His sword, which he had delivered up to admiral Rodney, was returned to him by the king. This etiquette enabled him to appear at court, where he was received by their majesties and the royal family in a manner suitable to his rank, and, from the time of his arrival in London to his departure on the 12th of August 1782, was visited by many persons of distinction.

Though the designs of the French against Jamaica were now effectually frustrated, the victory was not followed by those beneficial consequences which many expected. None of the British islands which had been taken by the French in the West Indies were recaptured; some of the ships which were taken by admiral Rodney were afterwards lost at sea; particularly the Ville de Paris, the Glorieux, and the Hector. A British man of war, the Centaur, of seventy-four guns, was also sunk, in lat. 48° 33′ and long. 43° 20′, on the 24th September, 1782, in consequence of the disabled state to which it was reduced by violent storms; and the lives of captain Inglefield the commander, and ten other officers and seamen, were only preserved by their getting on board a pinnace. The Jamaica homeward bound fleet was also dispersed this year by a hurricane off the banks of Newfoundland, when the Ramillies of seventy-four guns, and several merchantmen, foundered. The British navy also sustained, about this time, a considerable loss at home, by the Royal George, of 100 guns, being overset and sunk at Portsmouth. This melancholy accident, which happened on the 29th August, was occasioned by a partial heel being given to the ship, with a view to cleanse and sweeten her; but the guns on one side being removed to the other, or at least the greater part of them, and her lower deck ports being not lashed in, the ship thwarted on one side with a squall from the north-west, filled with water, and sunk in the space of three minutes. Admiral Kempenfelt, a very meritorious officer, other officers, upwards of 400 seamen, and 200 women, besides many children, perished in her. Thus the prosecution of the war seemed to be attended with endless disasters and difficulties.

In the beginning of May an expedition was undertaken, by the French, to the remote and inhospitable regions of Hudson's Bay; and, though no force existed in that place capable of making any resistance, a seventy-four gun ship and two thirty-six gun frigates were employed on the service. The loss of the Hudson's Bay company, on this occasion, amounted to £500,000, but the humanity of the French commander was conspicuous, in leaving a sufficient quantity of provisions and stores of all kinds, for the use of the British who had fled at his approach. Another expedition was undertaken by the Spaniards to the Bahama Islands, where a like easy conquest was obtained. The island of Providence was defended only by 360 men, who, being attacked by 5000, could make no resistance. Some settlements on the Musquito shore were also taken by the Spaniards; but the Bay men, assisted by their negroes, bravely retook some of them; and having formed a little army with the Indians in these parts, headed by colonel Despard, they attacked and carried the posts on the Black River, making prisoners of about 800 Spanish troops. The great disaster which befel this power, however, was their failure before Gibraltar, which happened in September, 1782, with such circumstances of horror and destruction as evinced the absurdity of persisting in the enterprise. See GIBRALTAR.

All parties to the war were at length desirous to put an end to it. We have already noticed the events which led to the removal of lord North and the other ministers, who, for so long a time, had directed the public measures of this country. His majesty, it was said, expressed, on this occasion, considerable agitation of mind; and the members of opposition would form no coalition with any of the old ministry, except the lord chancellor. On the 27th and 30th of March, 1782, the marquis of Rockingham was appointed first lord of the treasury; lord John Cavendish chancellor of the exchequer; the earl of Shelburne and Mr. Fox principal secretaries of state; lord Camden president of the council; the duke of Richmond master of the ordnance; the duke of Grafton lord privy seal; admiral Keppel first lord of the admiralty; general Conway commander in chief of all the forces in Great Britain; Mr. Thomas Townshend secretary at war; Mr. Burke paymaster of the forces; and colonel Barre treasurer of the navy. Other offices and honors were likewise conferred on different members of the opposition; and some were raised to the peerage, particularly admiral Keppel, Sir Fletcher Norton, and Mr. Dunning. The first business, of course, in which the ministry engaged, was the taking such measures as were proper to effect a general peace. Accordingly, the empress of Russia having offered her mediation to restore peace between Great Britain and Holland, Mr. secretary Fox wrote a letter to M. Simolin, the Russian minister in London, informing him that his majesty was ready to negociate on the terms and conditions of the peace which was made in 1674; and that, in order to facilitate such a treaty, he was willing to give immediate orders for a suspension of hostilities. But the states of Holland did not appear inclined to a separate peace: negociations for a general peace were now indeed commenced at Paris.

Mr. Granville was invested with full powers to treat with all the parties at war; and was directed to propose the independency of the thirteen united provinces of America, in the firs. instance. Admiral Digby and general Carleton were also directed to acquaint the American congress with the pacific views of the British court, and with the offer that was made to acknowledge the independence of the United States. But, before this work of pacification had made any considerable progress, the new ministry sustained an irreparable loss (July 1782) by the death of the marquis of Rockingham. Even before this

event, considerable apprehensions were entertained of their want of union; but, on the death of that nobleman, the earl of Shelburne, who succeeded him as first lord of the treasury, proved so disagreeable to some of his colleagues, that Mr. Fox, lord John Cavendish, Mr. Burke, and some others, instantly resigned. Others, however, though little attached to the earl, kept their places, and his lordship found means to attach to his interest Mr. Pitt, son of the late earl of Chatham. Though then in an early stage of life, this gentleman had distinguished himself greatly in parliament, and was now, at the age of twenty-three, prevailed upon to accept the office of chancellor of the exchequer. The seceding members of the cabinet were at great pains to explain their motives to the house for taking this step. These were in general a suspicion that matters would be managed differently from the plan they had proposed while in office, and particularly that the American independence would not be allowed; but this was positively denied at the time: and with truth, as appeared by the event. No obstruction, however, arose to the general pacification, and as early as 30th November, 1782, the articles of a provisional treaty were settled between Britain and America. By these it was stipulated that the people of the United States should continue to enjoy, without molestation, the right to take fish of every kind on the grand bank, and on all the other banks of Newfoundland; and that they should likewise exercise and continue that same privilege in the gulf of St. Lawrence, and at every other place in the sea, where the inhabitants used heretofore to fish. They were likewise to have liberty to take fish of every kind on such part of the coast of Newfoundland as British seamen shall resort to; but not to cure or dry them on that island: to possess the privilege of fishing on the coasts, bays, and creeks of all the other dominions of his Britannic majesty in America; and to cure and dry fish in any of the unsettled bays, harbours, and creeks of Nova Scotia, Magdalen Islands, and Labrador. But it was agreed that, after such places should be settled, this right could not be legally put in practice, without the consent of the inhabitants and proprietors. It was accorded, that creditors upon either side should meet with no impediment in the prosecution of their claims: that the congress should earnestly recommend it to the legislatures of the respective states, to provide for the restitution of all estates and properties which had been confiscated, belonging to real British subjects, and of the estates and properties of persons resident in districts in the possession of his majesty's arms, and who had not borne arms against the United States. It was resolved that persons of any description should have free liberty to go to any part whatsoever of any of the thirteen United States, and remain in it for twelve months unmolested in their endeavours to recover such of their estates, rights, and properties as might not have been confiscated; and it was concerted, that the congress should earnestly recommend to the several states a revision of all acts or laws regarding the premises, so as to render them perfectly consistent, not only with justice and equity, but with that spirit of conciliation which, on the return of the blessings of peace, should universally prevail. It was understood that no future confiscations should be made, nor prosecutions commenced against any person, or body of men, on account of the part which he or they had taken in the present war; and that those who might be in confinement on such a charge, at the time of the ratification of the treaty in America, should, together with all prisoners, be immediately set at liberty. The navigation of the river Mississippi, from its source to the ocean, was to remain for ever free and open to the subjects of Great Britain and the citizens of the United States. In fine, it was agreed, that if any place or territory belonging to Great Britain, or to the United States, should be conquered by the arms of either before the arrival of the provisional articles in America, it should be restored without compensation or difficulty.

In the treaty between Great Britain and France it was agreed, that Newfoundland should remain with England, as before the commencement of the war; and, to prevent disputes about boundaries, it was accorded that the French fishery should begin from Cape St. John on the eastern side, and, going round by the north, should have for its boundary Cape Ray on the western side. The islands of St. Pierre and Miquelon, which had been taken in September, 1778, were ceded in full right to France. The French were to continue to fish in the gulf of St. Lawrence, conformably to the fifth article of the treaty of Paris. The king of Great Britain was to restore to France the island of St. Lucia, and to cede and guarantee to her that of Tobago. The king of France was to surrender to Great Britain the islands of Grenada and the Grenadines, St. Vincent, Dominica, St. Christopher's, Nevis, and Montserrat. The river of Senegal and its dependencies, with the forts of St. Louis, Podor, Galam, Arguin, and Portendic, were to be given to France; and the island of Goree was to be restored to it. Fort James and the river Gambia were guaranteed to his Britannic majesty; and the gum trade was to remain in the same condition as before the commencement of hostilities. The king of Great Britain was to restore to his most Christian majesty all the establishments which belonged to him at the breaking out of the war on the coast of Orixa and in Bengal, with the liberty to surround Chandernagor with a ditch for draining the waters; and became engaged to secure to the subjects of France in that part of India, and on the coast of Orixa, Coromandel, and Malabar, a safe, free, and independent trade, either as private traders, or under the direction of a company. Pondicherry, as well as Karical, was to be rendered back to France; and his Britannic majesty was to give, as a dependency round Pondicherry, the two districts of Valanour and Bahour; and, as a dependency round Karical, the four contiguous Magans. The French were again to enter into the possession of Mahe, and of the comptoir at Surat.

The allies of France and Great Britain were to be invited to accede to the present pacification; and the term of four months was to be

allowed them, for the purpose of making their decision. In the event of their aversion from peace, no assistance on either side was to be given to them. Great Britain renounced every claim with respect to Dunkirk. Commissioners were to be appointed respectively by the two nations, to enquire into the state of their commerce, and to concert new arrangements of trade on the footing of mutual convenience. All conquests on either side, in any part of the world whatsoever, not mentioned nor alluded to in the present treaty, were to be restored without difficulty, and without requiring compensation. It was determined that the king of Great Britain should order the evacuation of the islands of St. Pierre and Miquelon, three months after the ratification of the preliminary treaty; and that, if possible, before the expiration of the same period, he should relinquish all connexion with St. Lucia in the West Indies, and Goree in Africa. It was stipulated, in like manner, that his Britannic majesty should, at the end of three months after the ratification of the treaty, or sooner, enter into the possession of the islands of Grenada and the Grenadines, St. Vincent, Dominica, St. Christopher's, Nevis, and Montserrat. France was to be put into possession of the towns and comptoirs which were to be restored to her in the East Indies, and of the territories which were to serve as dependencies round Pondicherry and round Karical, six months after the ratification of the definitive treaty; and, at the termination of the same term, she was to restore the towns and districts which her arms might have taken from the English or their allies in that quarter of the globe. Each crown was respectively to reimburse the sums which had been advanced for the maintenance of their prisoners by the country where they had been detained, according to attested and authentic vouchers. With a view to prevent every dispute and complaint, on account of prizes which might be made at sea, after the signing of the preliminary articles, it was mutually settled and understood, that the vessels and effects which might be taken in the channel, and in the North Seas, after the space of twelve days, to be computed from the ratification of the preliminary articles, were to be restored upon each side; that the term should be one month from the Channel and the North Seas, as far as the Canary Islands inclusively, whether in the ocean or the Mediterranean; two months from the Canary Islands as far as the equinoctial line or equator; and lastly, five months without exception in all other parts of the world. These preliminary articles of peace were concluded at Versailles on the 20th January, 1783, between Mr. Fitzherbert, minister plenipotentiary on the part of his Britannic majesty, and the comte de Vergennes, the minister plenipotentiary on the part of the king of France.

At the same time the preliminary articles of peace between Great Britain and Spain were also concluded at Versailles, between Mr. Fitzherbert and the comte d'Aranda, the minister plenipotentiary for the Spanish monarch. His Catholic majesty was to keep the island of Minorca; and was to retain West Florida. East Florida was to be ceded to him by the king of Great Britain. Eighteen months from the date of the ratification of the definitive treaty were to be allowed to the subjects of the latter, who had settled in the island of Minorca and in the two Floridas, to sell their estates, to recover their debts, and to transport their persons and effects, without being restrained upon account of their religion, or on any other pretence whatsoever, except that of debts and prosecutions for crimes. His Britannic majesty, was at the same time to have the power to cause all the effects that might belong to him in East Florida, whether artillery or others, to be carried away. The liberty of cutting logwood, in a district of which the boundaries were to be ascertained, without molestation, was permitted to Great Britain. The king of Spain was to restore the islands of Providence, and the Bahamas, without exception, in the condition in which they were when they were conquered by his arms. All other conquests of territories and countries upon either side, not included in the present articles, were to be mutually restored without difficulty or compensation. The epoch for the restitutions to be made and for the evacuations to take place, the regulations for the release of prisoners and for the cessation of captures, were exactly the same as those which have already been related, as stipulated in the preliminary articles with France.

8. *History of Great Britain from the peace of* 1783 *to the war of* 1793.—No sooner were these articles ratified and laid before parliament, than the most vehement declamations against ministry took place. Never had the administration of lord North himself been arraigned with more asperity of language. The ministry defended themselves with great resolution; but found it impossible to avoid the censure of parliament. An address without any amendment was indeed carried in the house of lords by seventy-two to fifty-nine; but in the lower house it was lost by 224 to 208. On the 21st of February some resolutions were moved in the house of commons by lord John Cavendish, of which the most remarkable were, that the concessions made by Britain were greater than its adversaries had a right to expect; and that the house would take the case of the American loyalists into consideration. The last motion indeed his lordship consented to waive; but all the rest were carried against ministry by 207 to 190. These proceedings, however, could make no alteration with regard to the treaty, which had already been ratified by all the contending powers, the Dutch only excepted. The terms offered them were a renewal of the treaty of 1674: which, though the most advantageous they could expect, were positively refused at that time. Afterwards they offered to accept the terms they had formerly refused; but the compliment was then returned, by a refusal on the part of Great Britain. When the preliminary articles were settled with the court of France and Spain, a suspension of arms took place with Holland also; but, though the definitive arrangements with the other powers were finally concluded by September, the preliminary articles were only then settled with Holland. The terms were a general restitution of all places taken on both sides during the war, excepting the settle-

ment of Negapatam in the East Indies, which was to remain in the hands of Britain, unless an equivalent was given on the part of Holland. The navigation of the eastern seas was to remain free and unmolested to all the British shipping. The other articles concerned only the exchange of prisoners, and such other matters as are common to all treaties.

An end was now put to the most dangerous war in which Britain had been hitherto engaged; and in which, notwithstanding the powerful combination against her, she still remained in a state of superiority to all her enemies. At that time, and ever since, it has appeared, how much politicians were mistaken, who imagined that the prosperity of Britain depended in a great measure on her colonies: though, for a number of years, she had not only been deprived of these colonies, but opposed by them with all their force; though attacked at the same time by three of the greatest powers in Europe, and looked upon with an invidious eye by all the rest; the injury inflicted on her enemies still greatly exceeded that she had received. Their trade by sea was almost ruined; and, on comparing the loss of ships on both sides, the balance in favor of Britain was twenty-eight ships of the line and thirty-seven frigates, carrying in all nearly 2000 guns. Notwithstanding this, however, the state of the nation appears to have been really such, that a much longer continuance of the war would have been impracticable. In the debates, which were kept up with the greatest violence on account of the peace, Mr. Pitt exhibited our situation with great energy and strength of argument. 'It was in vain,' he said, 'to boast of the strength of our navy; we had not more than 100 sail of the line: but the fleet of France and Spain amounted to nearly 140 ships of the line. Seventy-two ships of the line were to have acted against Jamaica. Admiral Pigot had only forty-six sail to support it; and it was a favorite maxim, of many members of the house, that defensive war must terminate in certain ruin. It was not possible that admiral Pigot could have acted offensively against the islands of the enemy; for lord Rodney, when flushed with victory, did not dare to attack them. Would admiral Pigot have recovered by arms, what the ministers had regained by negociation: with a superior fleet against him, and in its sight, is it to be conceived that he could have taken Grenada, Dominica, St. Christophers, Nevis, and Montserrat? On the contrary, is it not more than probable that the campaign in the West Indies must have terminated in the loss of Jamaica? In the east, it was true that the services of Sir Edward Hughes had been highly extolled; but he could only be commended for a merely defensive resistance. Victory seemed to be out of the question; and he had not been able to prevent the disembarkation of a powerful European armament, which had joined itself to Hyder Ally, and threatened the desolation of the Carnatic. See HINDOSTAN. At home, and in our own seas, the fleets of the enemy would have been nearly double to ours. We might have seized the intervals of their cruise, and paraded the channel for a few weeks; but that parade would have only served to disgrace us. It was yet the only achievement in our power; for, to have hazarded an engagement, would have been equivalent to a surrender of the kingdom. Neither, in his opinion, was the state of our army to be considered as formidable. New levies could not be raised in a depopulated country. We might send upon an offensive scheme 5000 or 6000 men: and what expectation could be excited by a force of this kind? To have withdrawn troops from America was a critical game. There were no transports in which they might be embarked; and if it had been possible to embark them, in what miraculous manner were they to be protected against the fleets of the enemy? As to our finances, they were melancholy. Let the immense extent of our debts be weighed; let our resources be considered; and, let us then ask, what would have been the consequence of the protraction of the war? It would have endangered the bankruptcy of public faith; and this bankruptcy, it is obvious, if it had come upon us, might have dissolved all the ties of government, and have operated to the general ruin. To accept the peace on the terms already related, or to continue the war, was the only alternative in the power of ministers. Such was the ultimatum of France. At the same time, however, it ought to be remembered, that the peace obtained was better than could have been expected from the lowness of our condition. We had acknowledged the American independence; but what was that but an empty form? We had ceded Florida; but had we not obtained the islands of Providence and the Bahamas? We had granted an extent of fishery on the coast of Newfoundland; but had we not established an exclusive right to the most valuable banks? We have restored St. Lucia, and given up Tobago: but had we not regained Granada, Dominica, St. Christophers, Nevis, and Montserrat? And had we not rescued Jamaica from inevitable danger? In Africa we had given up Goree; but Goree was the grave of our countrymen; and we had secured Fort James and the river Gambia, the best and the most healthy settlement. In Europe we had relinquished Minorca; but Minorca is not tenable in war, and in peace it must be supported at a ruinous expense. We had permitted the reparation of the port of Dunkirk: but Dunkirk could only be an object when ships of a far inferior draught to the present were in use; the change in the operations of naval war had taken away its importance. In the East Indies cessions had been made; but let it be remarked that these cessions are inconsiderable in themselves, and could not be protected by us in the event of hostilities. In fine, it was objected that we had abandoned the unhappy loyalists to their implacable enemies. What is this but to impute to congress, by anticipation, a violence which common decency forbids us to expect? But let it be considered, that the principle of assisting these unfortunate men would not have justified ministers to have continued the war. And let it be considered, that a continuation of the war would not have procured them any certain indemnity. The accumulation of our distresses

must have added to theirs. A year or two hence harder terms of peace might have been forced upon our acceptance. Their fate then must have been desperate indeed! But as matters were now situated, there were hopes of mercy and reconciliation.'

Having thus given as full an account, as our limits would allow, of the great national events, to the conclusion of the peace in 1783, we shall now advert to some others, which, though of sufficient importance to deserve notice, could not have been mentioned earlier, without interrupting the narrative. Under the article DOCK-YARD we have given an account of the attempt of Aitken, or John the Painter, on the public works at Portsmouth. This, it seems, was the mere political enthusiasm of a wretched vagabond. It appeared, however, that the French court were very well acquainted with many particulars relating to the state of this kingdom, and the movements of our squadrons, which ought to have been kept secret. The sources of this information were first detected in June 1780. One Ratcliffe, master of a cutter, had been hired by Mr. Rogere, to carry packets to France, for which he was to be paid £20 each time, and to have £100 besides at a certain period. Apprehending at last, however, that he might incur some danger by continuing this employment, he gave information of what was going on, to one Mr. Steward, a merchant of Sandwich, by whom his last packet was carried to the secretary of state. After being opened and sealed up again, it was returned, and Ratcliffe was directed to carry it to France as formerly. At last, by his complaining to Rogere that he had not been paid £100 according to promise, a meeting was procured, in which it appeared that the person who gave intelligence to the enemy, was M. Henry de la Motte, a French gentleman residing in London. On searching his house, in his absence from home, no papers of any consequence were found; but, on his arrival, he threw some out of his pocket, which led to the apprehension of Henry Lutterloh, esq; a German, who then resided at Wickham near Portsmouth. This person made a full discovery of the treasonable correspondence with France, while he gave abundant proofs of himself being one of the most depraved and hardened of mankind. His evidence, however, and other strong circumstances, were sufficient to convict M. de la Motte, who was accordingly tried and executed for treason. During the whole course of the war, only one other person, David Tyrie, a native of Edinburgh, was detected in this crime; and he appears to have been actuated merely by mercenary motives.

On the 21st of January, 1763, the house of commons met according to adjournment, and next day Mr. secretary Townshend, after observing, that it was become necessary to prevent the possibility of any farther doubts being entertained respecting the true meaning of the British parliament, in their proceedings of last session towards Ireland, moved, 'that leave be given to bring in a bill, for removing and preventing all doubts, which had arisen, or might arise, concerning the exclusive right of the parliament and courts of Ireland in matters of legislation and judicature; and for preventing any writ of error, or appeal, from any of his majesty's courts in that kingdom, from being received, heard, and adjudged in any of his majesty's courts in the kingdom of Great Britain.' The cause of introducing this bill was as follows:—When the establishment of the legislative and judicial independence of Ireland was under the consideration of the late ministry, two methods of doing it had been suggested: the one by renouncing what England held to be a right, but was ready to give up: the other by declaring that England, though it had exercised, had never been legally possesssed of this right. The former of these modes, it was said, might give offence to the people of Ireland, who insisted that England had never possessed any such right: and, to the latter mode of renunciation, it was apprehended that the parliament of Great Britain would never consent. The measure of a simple repeal of the declaratory act of the 6th of George I. was therefore adopted, as best suited to the spirit of the people of Ireland, and the dignity of the British parliament. After this, the parliament of Ireland proceeded to exercise their legislative powers, by enacting laws for regulating their judicial proceedings, and for confining the decisions of property to their own courts of law, with power of appeal to the house of lords in Ireland only. Affairs were proceeding in this amicable manner, when a cause that had been removed by writ of error from Ireland to the court of king's bench in England, long before the repeal had been in agitation, and which the judge by the rules of the court was obliged to determine, was brought to a decision. This unlucky accident was eagerly laid hold on by many in Ireland, and the jealousy they attempted to spread was improved by the British ministry, who seized the opportunity to show, from this instance, that the measures of their predecessors had not given complete satisfaction, and thus to court the applause of the people of Ireland, by the additional security which the bill now introduced would afford to their rights. The bill accordingly passed without any formal opposition; though it was remarked, that as the parliament of Ireland had declared, that no constitutional question did any longer exist between the two kingdoms, it was neither consulting the dignity of the legislature of Great Britain, nor paying any compliment to the discernment of that of Ireland, to declare that doubts might still arise, and to pass an act to prevent them, unasked, and grounded on surmises. Mr. Fox insisted, that the repeal of the 6th of George I. was an effectual abandonment of the English right of legislation and judicature over Ireland. As such it had been accepted by the Irish government, and had given general satisfaction. He cautioned ministers against listening to discontents, that had no existence. It could not be expected, that measures, however good, would give satisfaction to every individual. It was necessary to stop at some point, which should be the ne plus ultra of concession.

We have already noticed how much the terms

of the peace were censured by the resolutions of a majority of the house of commons, passed on the 21st of February, 1783. Though lord North had been some time out of office, the supporters of his administration still formed a very powerful body in the state; and such influence had he gained while in office, that to the latest period of his life, it is said, he could command forty votes in the house of commons. This formidable power of lord North was now augmented by the party which opposed the war, at the head of which was Mr. Fox: and these parties, though they still pretended to adhere to their former decidedly different sentiments, had come to an agreement to unite their strength, so as to form a complete majority in parliament, in opposition to the present ministry. No other views possibly could have united together men who had so recently opposed each other with the greatest personal virulence. On this famous coalition, as it has been since denominated, the eyes of the public and of the crown were alike fixed with great jealousy; and had it not been for the cool but firm conduct of his late majesty, during the contest which now commenced, the consequences would have been fatal to the constitution. The earl of Shelburne resigned his office of first commissioner of the treasury, and Mr. Pitt declared publicly in the house, that he only held his place of chancellor of the exchequer till a successor should be appointed. The consequence was, that a ministerial interregnum ensued, which continued till the beginning of April. During this period, the kingdom remained in a state of no small disorder; and without any responsible government. The court made various attempts to form a new ministry, without completely resigning the government of the nation to the coalition; but in vain. On the 19th of March, Mr. Coke, member for Norfolk, gave notice, that, if an administration should not be formed on or before the Friday following, he would move an address to the king on the subject. Rumors of an intended arrangement were immediately circulated, but the negociations for that purpose being suddenly broken off, Mr. Coke made his promised motion, 'That an humble address be presented to his majesty, that he would condescend to a compliance with the wishes of the house, by forming an administration entitled to the confidence of his people, and such as may have a tendency to put an end to the unfortunate divisions and distractions of the country.' This motion was received with general approbation; though the candidates for power, and particularly the members of the coalition, were openly blamed by several gentlemen. The address was ordered to be presented by such members as were of the privy council. On Wednesday, the 26th, the comptroller of the household reported his majesty's answer, 'That it was his earnest desire to do every thing in his power to comply with the wishes of his faithful commons:' and on Monday, the 31st, Mr. Pitt acquainted the house, that he had that day resigned his office. Being asked if any new arrangement was likely soon to take place, he replied that he knew of none, but concluded, from the king's message, that the measure would not be unnecessarily delayed. This answer did not satisfy the house. It now appeared, that the care of the public money was left without any responsible minister whatever. Much difference of opinion prevailed with regard to the steps proper to be taken; at last the earl of Surrey proposed, 'That an humble address be presented to his majesty, to express the grateful sense the house entertains of the gracious intentions expressed in his message of the 26th inst. To assure his majesty, it is with a perfect reliance on his paternal goodness, and an entire deference to his royal wisdom, that this house again submits to his consideration the urgency, as well as the importance, of the affairs which require the immediate appointment of such an administration as his majesty has given them reason to expect. To assure his majesty, that all delays, in a matter of this moment, have an inevitable tendency to weaken the authority of his government, to which this house is not more bound by duty, than led by inclination, to give an effectual and constitutional support. To represent to his majesty, that the confidence of foreign powers may be weakened by a failure of the ordinary means of a constant communication with them. That the final execution of treaties, with the important and decisive arrangements of a commercial and political nature, in consequence of a late revolution; that a provision for the heavy expenses, and the important services voted; and the ordinary reduction of the forces, and the expenses of a new establishment; that the settlement of national credit, seriously affected by the critical state of the East India Company;—that these, with other important concerns, do severally, and much more collectively, require an efficient and responsible administration, formed upon principles of strength and stability, suited to the state of his majesty's affairs, both at home and abroad: and that this house most humbly repeats its application to his majesty, that he will take such measures towards this object as may become his most gracious disposition, and quiet the anxiety and apprehensions of his faithful subjects.' His majesty at last yielded, for a time, to what he could not avoid without calling a new parliament; and, on the 2d of April, a new administration was announced, the following persons composing the cabinet:—The duke of Portland, first lord of the treasury; lord North, and Mr. Fox, secretaries of state; lord J. Cavendish, chancellor of the exchequer; lord viscount Keppel. first lord of the admiralty; lord viscount Stormont, president of the council; earl of Carlisle, privy seal; earl of Hertford, chamberlain, and earl of Dartmouth, steward of the household; lord viscount Townshend, master of ordnance; Mr. Burke, paymaster-general, Mr. C. Townshend, treasurer of the navy; Mr. Fitzpatrick, secretary at war; Mr. Wallace, attorney, and Mr. Lee, solicitor-general; and the earl of Northington, lord-lieutenant of Ireland.

The first object of importance that engaged the attention of parliament, after the change of administration, was the opening a commercial intercourse with the United States of North America. By the prohibitory acts, which had

passed previous to the war, all communication with that country in the way of trade had been entirely cut off: and though it was the prevailing opinion in parliament that those acts were virtually repealed, by the acknowledgment of the independence of the United States, yet in this new character they became subject to other restrictions, which it was necessary to relax and modify. A bill for this purpose had been introduced by the late ministry; but, during the various discussions which it underwent, difficulties of so complicated and important a nature had arisen, that it never passed through the committee. In the mean time, no regulations whatever having been stipulated by the treaty of peace, the commercial interests of Britain were suffering very materially. In this emergency, the new ministers thought it most advisable to drop the old bill, and to pass two short ones; the one to repeal all the prohibitory acts, and the other to remove the necessity of requiring documents, and to lodge, for a limited time, a power in the hands of the king and council, to make such other regulations as might be found expedient.

On the 16th of April the chancellor of the exchequer brought forward the loan for the current year, 1783. The sum borrowed was £12,000,000. Eleven bankers, with whom the terms were allotted, had £700,000 each; the rest was divided among the other bankers, the great trading companies, and the clerks of the public offices. The premium was £1 10s. per cent.; but, the stocks rising considerably in a few days after, the minister was censured for the disadvantageous bargain he had made. He vindicated himself by saying, that he had only been ten days in office; the late ministry had left the treasury without a shilling, and the public service admitted of no delay. On the 7th of May Mr. Pitt made his promised motion, respecting a reform in the parliamentary representation. He introduced it by declaring that 'he never felt more embarrassment or anxiety than at that moment, when, for his country's good, he found himself obliged to lay before the house the imperfections of that constitution to which every Englishman ought to look up with reverential awe; a constitution which, while it continued such as it was framed by our ancestors, was truly called the production of the most consummate wisdom. Raised by it to greatness and glory, England had been at once the envy and the pride of the world. Europe was taught by experience that liberty was the foundation of true greatness; and that, while England continued under a government perfectly free, she never failed to perform exploits that dazzled the neighbouring nations. But a melancholy series of events, which had eclipsed the glory of Britain, exhibited a reverse of fortune, which could be accounted for only on this principle, that during the last fifteen years there had been a deviation from the principles of that happy constitution, under which England had so long flourished. It was not for him to touch the venerable fabric; to see it stand in need of repair was sufficiently melancholy: but the more he revered it, the more he wished to secure its duration, the greater he felt the necessity of guarding against its decay. An Englishman who should compare the flourishing state of this country twenty years ago, with the state of humiliation in which she now is, must be convinced, that the ruin which he now deplores, having been brought on by slow degrees, and almost imperceptibly, proceeded from something radically wrong in the constitution. Of the existence of a radical error, no one seemed to doubt. The house itself had discovered, that a secret influence was sapping the very foundation of liberty by corruption: the influence of the crown had been felt within those walls, and had often been found strong enough to stifle the sense of duty, and to overrule the propositions made to satisfy the people. The house of commons, in former parliaments, had been base enough to feed the influence that enslaved its members; and thus was at once the parent and the offspring of corruption. This influence had risen to such a height, that men were ashamed any longer to deny its existence; and the house had at length voted, that it ought to be diminished. Among the various expedients that had been devised to bar the entrance of such influence, he had heard principally of three. One was to extend the right of voting for members to serve in parliament, which was now so confined, to all the inhabitants indiscriminately; so that every man, without the distinction of freeholder, or freeman of a corporation, should have a vote for a person to represent him in parliament: and this mode was thought, by those who patronised it, the only one consistent with true liberty in a free constitution, where every one ought to be governed by those laws only, to which they have actually given their consent, either in person, or by their representative. For his part, he utterly rejected and condemned this mode, which it was impossible for him to adopt, without libelling those renowned forefathers, who had framed the constitution in the fulness of their wisdom, and fashioned it for the government of freemen, not of slaves. The second expedient he had heard of, was to abolish the franchise, which several boroughs now enjoy, of returning members to serve in parliament. These were known by the popular appellation of rotten boroughs. He confessed there was something very plausible in this idea, but still he was not willing to adopt it. He held these boroughs in the light of deformities, which in some degree disfigured the fabric of the constitution, but which he feared could not be removed without endangering the whole pile. This brought him to the third expedient, which was to add a certain number of members to the house, who should be returned by the counties and the metropolis. The county members were taken from that class of gentlemen the least liable to the seduction of corrupt influence; the most deeply interested in the liberty and prosperity of the country, and consequently the most likely to pursue such measures as appear the most salutary to it. This appeared to him the most fit expedient to be adopted, because it had the merit of promising an effectual counterbalance to the weight of the boroughs, without being an innovation on the form of the constitution.

Mr. Pitt added, that he had drawn up three resolutions, which he would propose for their consideration: viz. 1. 'That it was the opinion of the house, that measures were highly necessary to be taken, for the future prevention of bribery and expense at elections.' 2. 'That for the future, when the majority of votes for any borough shall be convicted of gross and notorious corruption, before a select committee of that house, appointed to try the merits of any elections, such borough should be disfranchised: and the minority of voters, not so convicted, should be entitled to vote for the county in which such borough should be situated.' 3. 'That an addition of knights of the shire, and of representatives of the metropolis, should be added to the state of the representation.' Mr. Duncombe seconded the motion. Mr. Powys said, before he consented to make any alteration in the constitution of that house, he desired first to have the existence of the evil proved. He ridiculed the extravagant ideas entertained by certain great reformers, and alluded particularly to the duke of Richmond's scheme, who, he said, disdained to regard the narrow limits of practicability, and insisted upon universal representation. In proof of this, he read a part of the duke's letter to the Yorkshire committee, some passages of their resolutions, and of those of the Constitutional Society, &c. He, therefore, moved the order of the day. Mr. Thomas Pitt supported his honorable friend's motion because it was specific, and less alarming than the many visionary schemes of vain speculatists talked of out of doors. He said the borough influence was not without its merit: it had opposed the influence of the counties, when the knights of the shire attempted to carry the influence of the democracy too far, and build an unconstitutional power on the ruins of the monarchy. As to the propositions, he thought the number of additional knights proposed by far too many. If his honorable friend would reduce the number to one knight for every county, he would agree to that, as a mean of putting an end to the clamors of the people; but begged they would be given to understand, that the house would do no more. Lord North denied the existence of the influence complained of, and insisted that he himself afforded a proof of its non-existence. The American war, which had been laid to his charge, had often been called the war of the crown, but very unjustly; for it was undertaken to maintain the rights of the parliament and people of Great Britain. For this reason it was popular. If the influence of the crown had produced great majorities within that house, it could not have produced the almost unanimous approbation of the people without doors. But what made the war at last unpopular? Not its want of justice, but want of success. Where was then the influence of the crown? Why did it not avert this blow? Why did it not keep a minister in office in spite of the voice of parliament? Such an influence could not interfere, for it did not exist. He, therefore, opposed all innovation.

Mr. Fox animadverted with great strength of argument on the reasonings of his colleague. He wished the question had not been so narrowed, as the friends of reform were thereby disjoined. But, though he objected to the specific propositions, he would vote against the order of the day, as that went to crush all reform. It had been said, that the constitution was in theory already quite perfect, though in practice it might appear otherwise. The contrary, paradoxical as it might seem, he would nevertheless maintain. It was, in his opinion, the most absurd thing on earth in theory, though its practice was consonant to sound sense. What, for instance, could be more absurd, than to say, that there should be three independent and equipotent estates, one of whom was the governor and the other two the governed; and yet that no act of the legislature should be made without the agreement of these distinct and jarring powers? What could be more absurd than to say, that one of the estates should consist of a single person, and that person the governor, and that this single person's voice should be of equal force, with those of the millions he governed? Yet, absurd as this theory was, nothing absurd appeared in the practice. By the benignity of the prince, and the wisdom of his counsellors, discordant as these principles appeared, there was in the functions of government nothing of disorder. People, therefore, should not discredit theories, as wild or chimerical, because they concurred not with their own ideas. Were it not for theorists, the constitution, much as it was boasted of, would have had now but little claim to praise. What should we be now, but for our Harringtons, our Sydneys, and our Lockes? To invigorate the constitution of government frequently is as requisite as to invigorate the body of every individual. We are every hour wasting, and every hour recruiting; so is the constitution. 'To talk of innovations,' added Mr. Fox, 'as a bug-bear against reform, is what uncandid men have always done in politics as well as in religion. What are the reforms in the trials of contested elections? What is the law disqualifying custom-house officers from voting in elections? What is the bill which goes by the name of my honorable friend, Mr. Burke? What are all these but innovations in the constitution?—Away with the canting phrase. The single consideration is this:—Is any reform wanting, or not?—I think it is, and therefore concur in the motion.' At half past two A. M. the house divided, when there appeared, for the order of the day 293; against it 149; majority against Mr. Pitt's propositions 144.

About this period a fraudulent transaction of a singular nature, respecting the public money, was brought under the consideration of the house of commons. Messrs Powell and Bembridge, clerks of the pay office, having fallen under suspicion of gross misbehaviour, were examined before the treasury board, and appearances were so strong against them, that colonel Barre, then paymaster general, dismissed them from their office. Mr. Burke, however, upon his being appointed paymaster, re-instated them. This being considered as reprehensible, lord Newhaven, on the 24th of April, moved in the house of commons for a copy of the minute of the treasury board, respecting their examination, which

was agreed to. But, on the 2nd of May, his lordship informed the house, that he had heard prosecutions were ordered against them, on which account he moved to have the order discharged, that no proceeding might take place in that house, tending to bias the minds of the public against them before trial. Mr. Burke, on this occasion, defended the restoration of these parties, and said it was entirely his own act, upon which he had asked no advice, being responsible for it to his country; and that he had so regulated the pay office, that there was no danger of the public money being embezzled. Mr. Martin said, he could not help looking upon the restoration of these gentlemen, as a gross and daring insult to the public. The subject was resumed on the 19th of May; and on the 21st Mr. Rolle begged the paymaster to inform the house, whether he still intended to keep Messrs Powell and Bembridge in office? Mr. Burke assured the house, that he had not restored them upon slight grounds; he stated various savings to the public from his plan of reform, which the assiduity, fidelity, and industry of these two gentlemen had enabled him to introduce; and concluded by asking, was it then surprising that he should be unwilling to lose the assistance of men who had enabled him to make reforms so useful? However, he would abide by the judgment of the house. Mr. Powell had tendered his resignation, he said, and he had accepted it; Mr. Bembridge had also made frequent offers of resignation: it rested with the house, whether he should accept it. After some further conversation, it was understood, that Mr. Burke would accept of his resignation; but he declared, that he would keep both places vacant for them, in hopes that they would be acquitted. These hopes of Mr. Burke's, however, were disappointed; Mr. Powell, on the 26th of May, cut his throat in his bed-chamber: and, on the 18th of July, Mr. Bembridge was brought to trial before lord Mansfield, for embezzling the public money, to the amount of £48,709, when the jury, in fifteen minutes, returned a verdict of guilty. On the 26th of May, in the committee of ways and means, lord J. Cavendish opened the budget. The objects of taxation were bills of exchange; receipts, wills and legacies, bonds, law proceedings, admissions to inns of court, &c.; stage coaches; turnpike roads and enclosures; quack medicines; carriages; registers of births, marriages, and deaths; weights and measures; and an additional duty on postages; all of which, after some opposition, particularly to the receipt tax, passed.

On the 3rd of June, 1783, the duke of Richmond called the attention of the house of peers to an object, which he conceived might materially affect the administration of public justice, viz. the custody of the Great Seal, and the practice of committing it to the custody of judges, of which an instance then existed. The motion was as follows:—'The putting the seals in commission durante beneplacito, and appointing judges commissioners with large salaries and perquisites, to be received by them during the existence of a commission, originating in, and solely dependent on, the will and pleasure of the crown, tended to invalidate an act of the 13th of William III. for securing the independency of the judges.' After declaring, that he meant nothing personal to the present commissioners, he entered largely into the nature of independency of the judges. To secure this great object, two things were necessary, viz. 1. That their offices should be independent of the will of the crown; and, 2. That their salaries should be ascertained. By the former, their fears were effectually removed; by the latter, only, all temptations from hope could be done away. The act of 13th of William III. was intended to secure both these objects; and consequently, to give three judges, selected by favor, the great emoluments accruing to the holders of the great seal, in addition to their salaries as judges, was in direct opposition to the spirit of that act, placed them immediately within the influence of the crown, and consequently tended to diminish their independence. But the mischief, he said, had not stopped here. Another inconvenience of the same sort had arisen out of it, viz. the commission by which the chief justice of the king's bench sat as speaker of the house of lords. This commission, he knew, was of long date; but still it was a mode of reward dependent on the will and pleasure of the crown, and therefore in opposition to the design of having the salaries of judges fixed. He mentioned another matter which deserved their consideration;—the impropriety of judges sitting at all in that house. He did not wish that the highest honors should not be open to that profession; but that, while peers sat on the benches as judges, they should abstain from exercising their privilege from voting in the house. So long as they sat there they were necessarily legislators, and almost unavoidably became politicians; characters, which, in the opinion of the best writers on civil government, were utterly inconsistent with that of judge. Another reason, why he thought the lord chancellor, lords commissioners, and lords chief justices, ought not to vote in that house, was that, by so doing, they were obliged to sit in judgment on their own decrees, and thus, as it were, to try themselves. He said, he had often heard it boasted, that lord Hardwicke never had one of his decrees reversed, while he sat on the woolsack. This he had always considered as no compliment to that learned peer, but as a fact that proved too much. Did their lordships think lord Hardwicke so infallible, that, during the great length of time he presided in the court of chancery, he had never given an erroneous judgment? Must they not rather concur with him, that the true reason, why none of his decrees were reversed, was the great influence a lord chancellor of lord Hardwicke's abilities must always possess in that house? In support of this opinion, he desired their lordships to remember, that, when Mr. Henley was lord keeper, he had several of his decrees reversed; but when he was created a peer, and sat there as lord Northington, no more reversals were heard of. In all cases of appeal, it was for the most part customary to leave the judgment to the law lords: the impropriety, therefore, of trying over again the causes themselves had adjudged, needed

he thought, no farther argument. The motion being objected to, as throwing a direct censure on the late appointment of commissioners, it was withdrawn, and the following substituted:—'That a committee be appointed to take into consideration the independency of the judges, and such farther regulations as may be proper for securing the same.' But the previous question was moved, and carried without a division.

On the 17th of June Sir Cecil Wray presented a petition to the house of commons from the people called Quakers, setting forth, 'that the petitioners met in their annual assembly, having solemnly considered the state of the enslaved negroes, conceive themselves engaged, in religious duty, to lay the suffering situation of that unhappy people before the house, as a subject loudly calling for the humane interposition of the legislature; and they regret, that a nation professing the Christian faith should so far counteract the principles of humanity and justice, as, by cruel treatment of this oppressed race, to fill their minds with prejudices against the mild and beneficent doctrines of the gospel; and that, under the countenance of the laws of this country, many thousands of those our felllow creatures, entitled to the natural rights of mankind, are held, as private property, in cruel bondage; and the petitioners being informed that a bill for the regulation of the African trade is now before the house, containing a clause which restrains the officers of the African company from exporting negroes, the petitioners deeply affected with a consideration of the rapine, oppression, and bloodshed, attending that traffic, humbly request, that the said restriction may be extended to all persons whatsoever,' &c. Lord North, after paying several just compliments to the petitioners for their humanity, expressed his fears that it would be found impossible to abolish the slave trade, as it had, in some measure, become necessary to almost every nation in Europe: and as it would be next to an impossibility to induce them all to give it up, and renounce it for ever, so he was apprehensive that the wishes of the humane petitioners could not be accomplished. Sir Cecil Wray said, he went heart and hand with the petitioners, and wished something might be done towards abolishing a traffic which disgraced humanity. His motion that the petition lie on the table was agreed to.

During the whole of this session, the affairs of the East India company were objects of the unremitted attention of two committees appointed on that business; but the unsettled state of the government prevented any effectual measures from being taken in consequence of their reports. In the course of their investigations, however, appearances of guilt had been discovered against Sir Thomas Rumbold, a man who, though originally of a low station, had returned from India with an immense fortune, and been knighted. A public prosecution had been commenced against him two years before, and a bill of restraint had passed to prevent him from leaving the kingdom, or alienating his property. On the 2nd of June, 1783, the lord advocate, observed, in the house of commons, that, Sir Thomas Rumbold having finished his defence, it was now the duty of the house to take the whole of the evidence into consideration; but, as the season was far advanced, he moved for a bill to continue the proceedings and the restraining bill against him in their present state, notwithstanding any prorogation or dissolution of parliament. After some conversation, the motion passed, and the bill was brought in and agreed to.

On the same day Mr. Pitt brought in a bill for regulating the public offices; and said, the purpose of it was to embrace all the objects pointed out in the king's speech at the opening of the session. On the 17th he moved the house to resolve itself into a committee on the bill. Lord John Cavendish opposed the motion, alleging the bill was useless, and that all its objects might be answered without it, as the regulations necessary in the offices might be established by the heads of these offices. Mr. Pitt expressed his surprise at this last assertion, and to convince the house that abuses did exist in several public offices, and that the heads of these offices were not the most fit persons to correct them, he stated the following facts:—In the pay office, under the name of gifts, two clerks, whose salary is only £240 each, had received in one year, the one £2000, and the other £2500, and yet this happened in an office where the commisioners of accounts had been told no fees were taken. In the post office the incidental expenses were enormous. The secretary had 2½ per cent. commission on packets provided for those taken or destroyed. Under this head of packets, the nation, this very last war, had paid £120,000, and thus the secretary, whose salary is only £500, made £2500 a-year by this commission. The noble lord in the blue riband, (lord North) had cost the public the last year he presided at that board £1340 for stationary ware! He was surprised how such a bill could be run up; but, when he read the particulars, he was astonished it had not been ten times as much; for he found in one article a charge of £350 for whip-cord! Above £10,000 had been laid out on his lordship's house in Downing Street, and something near that sum on the house at Bushy Park. There were charges of £600 a-year for stationary consumed by the two secretaries of the treasury; and about £100 for each of the lords of that board. On the whole, Mr. Pitt expected, that, by this bill passing, there would be a saving of £40,000 a-year to the public.—Lord North vindicated himself from these charges; but, on the 19th, the bill was passed, though it was afterwards thrown out by the house of lords. On the 23rd of June the house was informed, by a message from the king, that £50,000 a-year was to be settled on the prince of Wales out of the civil list; but that £60,000 would be necessary as a temporary aid, to equip him at his outset in life. Mr. Fox observed that the proposed establishment was certainly far too low; and that he should undoubtedly, had the advising an establishment remained with him, have proposed a sum more adequate to the object in view. Such an observation coincided with what had been rumored, that Mr. Fox had suggested

a splendid establishment for the prince, which his majesty would not agree to. This sum was accordingly voted by both houses, and an address of thanks presented to his majesty. On the same day lord J. Cavendish moved for leave to bring in a bill for the better regulation of the offices in his majesty's exchequer, which was agreed to; and on the 4th of July, in the committee on the bill, he proposed, that after the interest of the then auditors, tellers, &c. should cease, the salaries of these officers should be fixed and certain. Mr. Fox said, the principle of the bill was not so much to reduce the salaries of these officers, as to prevent the emoluments arising from them from increasing with the public burdens, and the holders of them from becoming rich in proportion as the public should grow poor. It was estimated, that there would be a saving to the nation from these reforms of about £17,000 a-year in peace, and £40,000 in war. On the 1st of July, a motion was carried, for adjourning the farther consideration of the bill of pains and penalties against Sir T. Rumbold, &c., to the 1st of October, by which means the whole proceeding fell to the ground, and was never afterwards resumed.

Parliament met on the 11th of November, 1783, when the two houses were informed, in the speech from the throne, of the treaties of peace being concluded; and of the necessity of providing for the security of the revenue; and the East India company's affairs were stated as the reason of their being called together after so short a recess. Some days passed in discussions relative to different parts of the revenue; and on the 18th of November Mr. Fox moved for leave to bring in 'A bill, for vesting the affairs of the East India Company in the hands of certain commissioners, for the benefit of the public:' and also, 'A bill for the better government of the territorial possessions and dependencies in India.' By the former, he proposed to enact, 'That the whole government and management of the territorial possessions, revenues, and commerce of the company, together with all the powers and authorities before vested in the directors, or in the general court of proprietors, should be vested in seven directors, named in the bill; viz. earl Fitz-William, the right honorable Frederick Montague, lord viscount Lewisham, the honorable George Augustus North, Sir Gilbert Elliott, Sir Henry Fletcher, and Robert Gregory, Esq. These directors, or commissioners, were to hold their office for four years, and were not to be removeable by his majesty, without an address of either house of parliament. That, for the sole purpose of ordering and managing the commerce of the said company, nine assistant directors, being proprietors, each of £2000 capital stock, should be appointed to act under the directors aforesaid. That all vacancies in the office of the directors should be filled by his majesty; and that the vacancies in the office of the assistant directors should be filled by a majority of the proprietors, at an election by open poll. That the assistant directors should be removable by five directors, the cause and reasons for such removal being entered on their journals, and signed with their respective names; and that the directors and assistant directors should be removable by his majesty, upon an address of either house of parliament. The bill then provided certain regulations relative to the official proceedings of the directors; and enumerated certain disqualifications which should render any person incapable of being a director, or assistant director. It then proposed to enact, that the directors should, once in every six months, lay before a general court of proprietors an exact state of the mercantile concerns of the company; and that, before the commencement of every session, they should lay the same, with other accounts therein stated, before the commissioners of his majesty's treasury, to be by them laid before the parliament. Authority was given to the directors 'to remove, suspend, appoint, or restore, any of the officers in the company's service, either civil or military. It next provided for 'the speedy and effectual trial of all persons charged with any offences committed in India; and for the prevention of all persons so charged, from returning to India before a due examination of the matters charged shall be had; and required from every director, before whom examination into the subject matter of such charge shall be had, to enter into the journals, and subscribe with his name, the specific reasons on the particular case, for the opinion or vote he shall give thereon.' It further provided for 'a speedy decision upon all differences or doubts, which might arise among the members of their government in India;' and directed that, 'in case such a decision shall not be had within three months after the account of any such difference or doubt shall be received, the directors shall enter on their journals their reasons for not coming to such a determination.' And, lastly, that the assistant directors should be allowed a clear yearly salary of £500 from the company.' By the second bill (which Mr. Fox introduced on the 26th of November) 'the powers granted to the governor-general and council, by the 13th Geo. III., were more fully explained, and strict obedience to the orders of the directors enjoined. The delegation of the powers of the council general, or of any presidency, was prohibited; the revision of all proceedings in special commissions directed; and the regular communication of all correspondence in India provided for. It forbid the exchange, or the acquisition, or the invasion, of any territory in India, or the forming any alliance for such purposes, or the hiring out any part of the company's forces, by the council general, or any presidency. It prohibited the appointment to any office of any person removed for misdemeanor; and the letting out to hire any farm, or other thing, to the servants of any person in the civil service of the company. It abolished all monopolies in India. It declared the acceptance of all presents to be illegal with certain penalties; and made such presents recoverable by any person for his own sole benefit. It secured an estate of inheritance to the native landholders, and provided against the alteration or the increase of rents. It directed, that princes engaged to keep up or pay troops for the service

of the company, or paying tribute to them, or under their protection, shall not be molested in the enjoyment of their rights. It explained the powers granted by the 13th Geo. III. to the council-general over the other presidencies, in matters of war, peace, and treaties: and disqualified the agents of any protected prince, and all persons in the service of the company, from sitting in the house of commons during their continuance in such employment, and for a certain time after quitting the same. It lastly directed, 'that all offences against this act may be prosecuted in the courts in India, or in the court of king's bench.' Such was the substance of these two celebrated bills: but, whatever were their merits as a system of government for India, they were evidently to contemn what had hitherto been considered sacred in Britain: they were to wrest from the hands of those to whom privileges had been granted by charter, the powers attached to those privileges, by which the incorporation had managed their affairs: they were to do more, they were to place these powers, with all the pecuniary advantages connected with them, for four years in the hands of seven individuals nominated by the present administration, beyond the control of the crown.

Mr. secretary Fox introduced the first of these bills on the 18th of November, when he showed the necessity of remedying the many abuses that had crept into the government of the East India Company's territories. These had been so severely felt, that parliament had instituted enquiries by which the sources of them might be discovered, and proper remedies applied. Committees had been appointed; their researches had been pursued with uncommon industry, and their reports contained information so complete, that perhaps the like had never been laid before parliament. The state of the company's finances was truly deplorable: they had last year applied to parliament for leave to borrow £500,000 on bonds; they had petitioned for £300,000 in exchequer bills, and for the suspension of a demand on them by government for £700,000 due for customs: they owed £11,200,000, and had stock in hand only to the amount of about £3,200,000 which left a debt of £8,000,000, a sum highly alarming, when compared with the capital of the proprietors. Government must, therefore, either step in, or the company must be annihilated. Gentlemen must not be led away with the idea, that the public had no right to take upon themselves to control the government of the company's settlements. The public had a greater interest in them than the company itself. The whole amount of the dividend to the proprietors was only about £256,000, whereas the nation derived from the customs paid by the company about £1,300,000. The people of England had, therefore, a much greater stake in the business than the proprietors. The prosperity of the company was so closely connected with that of the state, that the credit of the former could not be injured without giving a shock to that of the kingdom. If the bills for £2,000,000 should return protested, what would the world say but that the people of England were bankrupts, else they would not have suffered the bankruptcy of a company, which paid them £1,300,000 a year? He then said it was his intention, in the bills moved to be brought in, to authorise the lords of the treasury to consent that the directors shall accept the bills now on their way to England, though the nation would thus be liable to pay the whole, if the company should not be able to take up the debt. Thus he hoped to save the sinking credit of the company. He ascribed all the misfortunes of the company to their want of control over their servants. Having stated various grievances arising from this, he pointed out the remedies he intended to apply by the bill.

Mr. Fox's motion, strongly seconded by colonel North, was opposed by Mr. Pitt; who, though he admitted the necessity of the interference of parliament in the affairs of the East India Company, said, that the chartered rights of British subjects, confirmed by acts of the British legislature, could not be violated but by a breach of the constitution. Necessity was the common plea of tyranny. To reform the abuses of any government, he argued, was there a necessity to annihilate the very existence of it? By annihilating the constitution of the East India Company, established on the most sacred bonds of civil government, you shake the fabric of the British constitution to the foundation, destroy the distinctions of property, and establish a despotic power in a limited government. Not to mention the great increase of that undue influence of the crown, which the right honorable gentleman appeared lately so anxious to diminish, the measure threatened danger to liberty, destruction to commerce, and the most alarming consequences to national credit. Governor Johnstone treated with his usual asperity the measures that ministry had pursued to distress the East India Company; though he applauded the principles of justice and humanity that formed the basis of the bill, so far as it respected restitution to the native princes of India, and the establishment of the zemindars and poligars in their farms at the old rents. He concluded with a panegyric on governor Hastings. Mr. Fox begged gentlemen to recollect, that the character of Mr. Hastings was not involved in the consideration of the bill. The motion being carried without a division, the bill was read a first time on the 20th of November, and appointed to be read the second time on the 26th. On the 24th a petition was presented against it from the proprietors, and on the 25th another from the directors, praying to be heard by counsel, which were ordered to lie on the table. On the 26th Mr. Fox brought forward his second bill for the regulation of the affairs of the East India Company, which was read, and ordered to be read the second time on the Tuesday following. The arguments urged against the bills were drawn chiefly from two sources: 1. The arbitrary defeazance of the chartered rights of the courts of proprietors and directors, without a justifiable plea of necessity: 2. The dangerous power lodged in the hands of the new commissioners. On both these grounds, the advocates for the bills joined issue with their opponents. To substantiate the grounds of necessity, the sup-

porters of the bills argued, that the phrase chartered rights was full of affectation and ambiguity: that there were two kinds of charters; the first when the natural rights of men were confirmed by some public deed, such as the charters of king John and king Henry III. The second formed on principles the very reverse of these, for the purpose of suspending the natural rights of mankind at large, to confer some exclusive privileges on particular persons. Such were commercial charters; and such charters were therefore, in the strictest sense, voidable, whenever they substantially varied from the purpose of their existence. In conformity to this, parliament had actually passed several acts, all infringing on the company's charter. It had been admitted on all sides, that the company, under its present constitution, was totally inadequate to the government of their immense territorial acquisitions; but it was contended that, in the present measure, the extent of the remedy went infinitely beyond the extent of the necessity: that the disfranchisement of the members of the company, and the confiscation of their property, could only be justified by acts of delinquency legally established. To this it was replied, that their property was not confiscated, the bill expressly vesting it in the company, in trust for the sole benefit of the proprietors.

While these bills were thus supported with great ability, Mr. Pitt contended that, by vesting the whole patronage of India in the hands of seven directors nominally appointed by parliament, but really selected by administration, the influence of the crown would be augmented to such an extraordinary degree, that, like an irresistible torrent, it might utterly overturn and sweep away the remaining liberties of the country. Mr. Dundas opposed the measure, not because it augmented the power of the crown, but because it increased a power already overgrown: it placed a new and unparalleled influence in the hands of the minister and his coadjutors for four years, which would be independent of the crown and of parliament: it would thus create a fourth estate in the realm, with a power of a most dangerous nature, which in the end might annihilate the crown and subvert the constitution. Mr. Fox's motives on this occasion were attacked by the ordinary members of opposition in very pointed language. They said that it was evident nothing short of a perpetual dictatorship would satisfy his inordinate ambition. They allowed that he had many respectable qualities; but they could on no account see him exalted on the ruins of the constitution. It was alleged that he was ready to sacrifice the king, the parliament, and the people, at the shrine of a party, &c. The chief supporters of the bills were the two secretaries, Mr. Fox, and lord North; Sir Grey Cooper, and Messrs. Erskine, Burke, Sheridan, Anstruther, and Adam; against it were Messrs. W. and T. Pitt, the marquis of Graham, Sir J. Lowther, and Messrs. Dundas, Dempster, Powis, Jenkinson, and M'Donald. During the progress of the bills the court of directors of the East India Company were heard by council; and the mayor and common council of the city of London presented a petition praying they might not pass into laws. Such, however, was the influence of the coalition, that, on the 28th of November, the votes on the commitment of the first bill were 229 to 120. On the 1st of December, in the committee, the votes for proceeding on the bill stood 217 to 103; on the third the seven directors and nine assistants were nominated without opposition; and on the 8th the bill was passed by a majority of 106; there being 208 for it, and 102 against it.

On the 9th of December Mr. Fox carried the first bill to the house of peers, and on the 11th it was read a first time, when earl Temple, lord Thurlow, and the duke of Richmond, expressed their abhorrence of the measure in the strongest terms. Lord Thurlow descanted on the flourishing state of the company's affairs, and pronounced a brilliant panegyric on governor Hastings. After a short debate on the production of papers, the second reading was fixed for the 15th In the mean time, the parliamentary debates on the bills being diffused through the nation, they not only created considerable interest in the minds of the public, but seem to have awakened the feelings of the sovereign. It was affirmed that, on the 11th of December, the king had signified to lord Temple his complete conviction of the correctness of the views of opposition, and authorised him to declare the same to such persons as he should think proper: that a written note was put into his hands, in which his majesty declared, that he should esteem those who should vote for the India bill, not his friends, but his enemies: and that if he (lord Temple) could put this in stronger words, he had full authority to do so. It was also said that a communication had been made to the same purport to several other peers in the house of lords; therefore, on the 15th of December, counsel being heard against the bill, and soliciting at eleven at night to postpone farther proceedings till next day, the motion for adjournment was carried against the ministry by eighty-seven to seventy-nine. In consequence of what had now taken place, a motion was brought forward in the house of commons on the same day by Mr. Baker: that it is now necessary to declare, that to report any opinion, or other proceeding depending in either house of parliament, with a view to influence the votes of the members, is a high crime and misdemeanour: derogatory to the honor of the crown; a breach of the fundamental privileges of parliament, and subversive of the constitution. The motion was seconded by lord Maitland, but strongly opposed by Mr. Pitt, who urged the impropriety of proceeding on mere unauthenticated rumor. With respect to the effects adduced as a proof of these reports, they were not conclusive, as it was not unusual for the lords to reject a bill that had been passed by the commons, without the least suspicion of undue influence. After a long and warm debate, the house divided, when there appeared for the motion 151, against it eighty. It was then resolved, that, on Monday next, the house should resolve itself into a committee of the whole house, to take into consideration the present state of the nation.

As a change of ministers appeared to be a

measure determined upon by the king, and a dissolution of parliament the immediate and necessary consequence, the majority of the house thought no time was to be lost, in endeavouring to render the attempt as difficult as possible. With this view, immediately after the above resolutions were agreed to, Mr. Erskine made the following motion, that it is necessary to the most essential interests of this kingdom, and peculiarly incumbent on this house, to pursue with unremitting attention the consideration of a suitable remedy for the abuses, which have prevailed in the government of the British dominions in the East Indies; and that this house will consider as an enemy to his country, any person who shall presume to advise his majesty to prevent, or in any manner interrupt, the discharge of this important duty. The motion was opposed as factious, as interfering with the executive part of government, and trenching on the undoubted prerogative of the crown, without any just cause. It was carried, however, by the same majority, with the former.

On the 16th of December the house of peers heard counsel against the bill, and on the 17th, after a warm debate, it was rejected by a majority of ninety-five to seventy-six. On this occasion the prince of Wales did not vote. Previous to the division, the reports of the undue influence being again mentioned by the duke of Portland, lord Temple acknowledged, that his duty had led him to solicit an interview with his sovereign on the bill; that he had then communicated his sentiments very fully to his majesty; that these were lodged in the breast of his sovereign; and what they were would for ever remain a secret. But though he would not declare affirmatively, what his advice to his sovereign was, he would tell their lordships negatively what it was not: it was not friendly to the principle and object of the bill. In doing this he was confident he had acted a dutiful part to his sovereign. On the 18th, at twelve o'clock at night, a messenger delivered to the two secretaries his majesty's orders, that they should deliver up the seals of their offices, and send them by the under secretaries, Messrs. Frazer and Nepean, as a personal interview would be disagreeable to him. The seals were immediately given by the king to lord Temple, who sent letters of dismission next day to the rest of the cabinet council; Mr. Pitt was forthwith appointed first lord of the treasury, and chancellor of the exchequer; earl Gower president of the council. On the 22nd lord Temple resigned the seals, which were delivered to lord Sydney and the marquis of Caermarthen as secretaries of state. Lord Thurlow was appointed lord high chancellor, the duke of Rutland lord privy seal; lord viscount Howe first lord of the admiralty; the duke of Richmond, master of ordnance; W. W. Grenville, esq., and lord Mulgrave paymasters general; H. Dundas, esq., treasurer of the navy; earl of Salisbury lord chamberlain; Lloyd Kenyon, esq., attorney general; R. Pepper Arden, esq., solicitor general; Ilay Campbell, esq., lord advocate for Scotland; and R. Dundas, esq., solicitor.

A formidable majority in the house of commons still adhered to the late ministry, and, after their dismission, made the dissolution of parliament, in the public opinion, an event immediately to be expected. The passing of the land-tax bill, however, was previously necessary. It had been twice read, and the 20th of December appointed for the third reading. But, as the committee on the state of the nation was to sit on the 22nd, the house, on the 19th, after a short debate, adjourned to the 22nd. On that day, before the speaker left the chair, Mr. W. Grenville informed the house, that lord Temple had authorised him to say, that he was ready to meet any charge that should be made against him; and that he had thought fit to resign the seals to prevent all suspicion of his seeking for protection as a minister. In answer to this notification, Mr. Fox said, that, as to the earl's relinquishing an office which he had held but three days, he was doubtless the fittest judge; but as to the facts alluded to, facts of public notoriety, which affected the honor of parliament, and the safety of the constitution, he trusted the house would take them into their most serious consideration: though, indeed, the secret nature of them almost precluded the possibility of bringing a personal charge against any one. In the committee on the state of the nation, Mr. Erskine proposed that an address should be presented to the king, stating the alarming reports of an intended dissolution of parliament; to represent to his majesty the inconveniences and dangers that would attend such a measure, at a moment when the maintenance of public credit, the support of the revenue, and more especially the distressed state of the finances of the East India Company, and the disorders prevailing in their government both at home and abroad, demanded the most immediate attention: to beseech his majesty to suffer them to proceed on the important business recommended to them in his speech from the throne; and to hearken to the voice of his faithful commons, and not to the secret advices of persons who may have private interests of their own, separate from the true interest of his majesty and his people. This address being agreed to was presented to the king, and on Wednesday the 24th of December, the speaker read to the house the answer, which assured the house that it had been the constant object of his majesty to employ his authority to its true and only end—the good of the people; that he agreed with them in thinking that the support of the public credit and revenue must demand their vigilant care; and that the state of the East Indies was also an object of as much delicacy as importance. It concluded, 'I trust you will proceed in these considerations with all convenient speed, after such an adjournment as the present circumstances may seem to require; and I assure you, I shall not interrupt your meeting by any exercise of my prerogative, either of prorogation, or dissolution.' Objections were now made to these concluding words. It was said, that the whole extent of the royal favor amounted to no more than an assurance, that they should meet again; and in the committee upon the state of the nation, on a motion of lord Beauchamp, the chairman was directed to move, 'That it is the opinion of this

house, that the lords of the treasury ought not to consent that the directors of the East India Company do accept any more bills, unless they shall be able to prove to parliament that they have sufficient means to provide for the payment of them, after they shall have paid their dividend, and discharged the debt due to government.' It was next resolved, on a motion of lord Surrey, that an address be presented to the king, to desire that his majesty would not grant the office of chancellor of the duchy of Lancaster to any person, otherwise than during pleasure, before the 20th of January, 1784. These motions met with but a feeble opposition. The latter motion was founded on the enquiry that had been instituted, into the establishments of the duchy of Lancaster, for the purpose of determining whether these might not be reduced or abolished. These motions being passed, the house adjourned to the 12th of January, 1784.

The expectation of the public was now fixed with great anxiety on the meeting of parliament after the recess. A contest between the executive government and the house of commons was a spectacle that had not been exhibited in Great Britain since the accession of the house of Hanover: and many circumstances concurred to render it peculiarly important and interesting. The matter in dispute concerned the very essence of the constitution, and could not be decided without considerably affecting its bias. In the pretended defence of the authority of the house of commons were arranged the united abilities of two powerful parties, long exercised by mutual contests in all the arts of political warfare. The champion of prerogative was a person not less distinguished by his splendid talents, and the consequent unexampled rapidity of his rise to power, than by the courage and perseverance he had already demonstrated in the cause he now stood forward to support. By the usual effect of ministerial influence upon the house of commons, as well as by the increasing abhorrence of the designs of the coalition, a sufficient number of members joined the new administration to make their votes nearly equal to those of opposition. In this state of affairs, both houses met on the 12th of January, 1784. As soon as the speaker had taken the chair, Mr. Fox attempted to introduce, previous to any other business, the discussion of certain resolutions drawn up by the opposition; but was interrupted by the swearing in of new members; after which Mr. Pitt declaring he had a message to deliver from the king, and wishing to supersede the measures of opposition by the important consideration of the East India Company's affairs, rose up at the same instant with Mr. Fox. A tumult ensued as to who had the prior right to speak, but it was settled by the speaker in favor of Mr. Fox. He called upon the minister, if he wished to put a stop to such measures as the committee might think necessary to adopt for their own security, to give the house some satisfactory assurance, that no dissolution would take place. With this requisition, Mr. Pitt positively refused to comply, and declared, that 'he would never compromise, nor bargain away, the royal prerogative in the house of commons.' The majority, who were now persuaded that the new ministers were only to be withheld by their fears from putting an end to the session, resolved to render such a step highly dangerous, at least, if not impossible. With this view, as soon as the question for the order of the day was carried, on a division of 232 against 193, and the speaker had left the chair, the two following resolutions were moved by Mr. Fox, passed without a division, and, being reported, were agreed to by the house: 1. 'That it is the opinion of this committee, that for any person or persons in his majesty's treasury, or in the exchequer, or in the bank of England, employed in the payment of the public money, to pay, or direct, or cause to be paid, any sum or sums of money, for, or towards, the support of the services voted in this present session of parliament, after the parliament shall have been prorogued or dissolved, if it be dissolved or prorogued before any act of parliament shall have passed appropriating the supplies to such services, will be a high crime and misdemeanor, a daring breach of the public trust, derogatory to the fundamental privileges of parliament; and subversive of the constitution of this country.' 2. 'That it is the opinion of this committee, that the chairman of the committee be directed to move the house, that the bill for punishing mutiny and desertion, and for the better payment of the army and their quarters, be read a second time, on Monday the 23d of February next.' The immediate dissolution of parliament being thus far rendered impracticable, two other resolutions were moved by the earl of Surrey, viz. 1. 'That, in the present situation of his majesty's dominions, it is peculiarly necessary that there should be an administration which has the confidence of this house and the public.' 2. 'That the late changes in his majesty's councils had been immediately preceded by dangerous and universal reports, that the sacred name of the king had been unconstitutionally used to affect the deliberations of parliament; and that the appointments made were accompanied by circumstances new and extraordinary, and such as do not conciliate or engage the confidence of this house.' Mr. Dundas objected to the first resolution, that the name of the king had been, perhaps, accidentally, but certainly very improperly omitted; and proposed an amendment by inserting, instead of the words 'this house and the public,' the following, viz. 'the crown, the parliament, and the people.' This amendment, being merely proposed to point out the factious spirit of the resolution, was rejected without a division. In the debates which now took place upon these resolutions, the most pointed and sarcastic personalities were thrown out and retorted from both sides of the house. The coalition was branded as a corrupt confederacy of two desperate factions, to seize upon the government; the India bill was said to have been an experiment made by the late secretary, to raise himself to a degree of power superior to that of the sovereign. On the other hand, the new administration were described as a coalition,

not indeed of parties, but of the shreds and remnants, the dregs and outcasts, of all parties; as a body collected for the purpose of fighting the battles of secret and unconstitutional influence; of trampling on the power and dignity of the house of commons; of establishing a government of cabal, intrigue, and favoritism; and of destroying the very principles of laudable ambition and honorable service in the state. At last, about seven o'clock in the morning of the 13th of January, the committee divided, when the motion was carried by a majority of 142, there being for it 196, against it fifty-four.

On Wednesday, the 14th of January, Mr. Pitt moved for leave to bring in 'a bill for the better government and management of the affairs of the East India Company.' By this bill commissioners were to be appointed by his majesty, from the members of his privy council, who were 'authorised and empowered from time to time, to check, superintend, and control, all acts, operations, and concerns, which in any wise relate to the civil or military government, or revenues of the territories and possessions of the said united company in the East Indies.' It proposed to enact, 'that the said board shall have access to all papers and muniments of the said united company, and shall be furnished with copies thereof, and of all the proceedings of all general and special courts of proprietors, and of the court of directors; and also copies of all despatches which the directors shall receive from any of their servants in the East Indies, immediately after the arrival thereof; and also of all letters, orders, and instructions, whatsoever, relating to the civil or military government or revenues of the British territorial possessions of the East Indies, proposed to be sent to any of the servants of his majesty, or of the said company in the East Indies: and that the court of directors shall, and are required to, pay due obedience to, and shall be governed and bound by, such orders and directions as they shall, from time to time, receive from the said board, touching the civil or military government and revenue of the territories and possession of the company. And it further proposed to enact, that the said board shall return the copies of the said despatches to the court of directors, with their approbation thereof, or their reasons at large for disapproving the same, together with instructions in respect thereto; and the court shall thereupon despatch and send the letters, orders, and instructions, so approved or amended, to their servants in India, without farther delay; and that no letters, orders, or instructions, until after such previous communication thereof to the said board, shall, at any time, be sent or despatched by the said directors, to the East Indies, on any account or pretence whatever. That in case the said board shall send any orders, which, in the opinion of the said court of directors, shall relate to points not connected with the civil or military government and revenues of the said territories and possessions in India, it shall be lawful for them to apply by petition to his majesty in council, touching such orders; and the decision of the council thereon shall be final and conclusive. That the nomination of the commanders in chief shall be vested in his majesty, and that the said commanders in chief shall always be second in council. It also vested in his majesty the power to remove any governor general, presidents, and members of the councils of any British settlements in India; and proposed to enact, that all vacancies in the offices aforesaid shall be supplied by the court of directors, subject to the approbation of his majesty. Lastly, that no order or resolution of any general court of proprietors shall be available to revoke or rescind, or in any respect to affect, any proceeding of the court of directors, after his majesty's pleasure shall have been signified upon the same. The debates on this bill turned chiefly on its merits and demerits, as compared with Mr. Fox's India bill, rejected by the house of lords. Mr. Pitt said that, in his bill, all the rights enjoyed by the company under their charter were preserved inviolate, as far as was compatible with the public safety. When, in answer to this, it was shown, that nothing but the shadow of power was preserved to the company, and that, by the negative reserved to the crown in all matters whatsoever, the substance was in effect vested there; he replied that, whatever might be its effect, yet having previously obtained the consent both of the court of proprietors and directors, to all the regulations contained in it, no violation of privileges could be charged, where the surrender was voluntary. Various other arguments were adduced by both sides; but at a second reading of the bill, on the 23rd of January, the motion for its commitment was rejected by a majority of eight; the votes being for it 214, against it 222.

On the 16th of January, lord Charles Spenser moved, in the committee on the state of the nation, 'That it has been declared to be the opinion of this house (referring to the resolutions formerly moved by lord Surrey), that the continuance of the present ministers in trusts of the highest importance and responsibility is contrary to constitutional principles, and injurious to the interests of his majesty and the people.' In opposition to this motion it was argued, that the premises, admitting them to be true, did not warrant the conclusion; that the ministry had been constitutionally appointed by the king, whose sole right it was to appoint them, &c. After a warm debate, the resolution was adopted, by a majority of 205 to 184. On the rejection of the India bill, Mr. Pitt was requested to satisfy the house respecting the measure of a dissolution; and a loud and general call was repeated from every side of the house. At length some harsh personalities obliged him to rise and complain of such treatment, but he concluded with a flat refusal to give any answer on the subject. The house became unusually warm, and Mr. Eden was preparing a resolution, when Mr. Fox moved to adjourn till next day in order to give Mr. Pitt time to consider, whether he had treated the house with that respect which a minister in his peculiar circumstances ought to do. Next day, Saturday, January 24th, the house met again, but the only answer given by the minister was, 'that he had no intention to advise his majesty to prevent that house from meeting on Monday:

whereupon the house, upon Mr. Powis's motion, adjourned to that day, 'in the hopes, that before next meeting, some means might be inverted of healing the divisions that threatened the country with anarchy and confusion.' These hopes, however, were disappointed; notwithstanding a respectable meeting was held on the 26th at the St. Alban's tavern, of about seventy members, who joined in an address to Mr. Pitt and the duke of Portland, recommending such a measure by a coalition of parties; 'being persuaded,' they said, 'that the united efforts of those, in whose integrity, abilities, and constitutional principles they had reason to confide, could alone rescue the country from its present distracted state.' Further, to promote such a union of parties, a motion was made by Mr. Grosvenor, on the 2d February, in the house of commons, 'That the present critical situation of public affairs required the exertions of a firm, efficient, extended, and united administration, entitled to the confidence of the people, and such as might tend to put an end to the divisions and distractions of this country.' A second resolution, of a less mild tenor, was moved by Mr. Coke, 'That the continuance of the present ministers in office was an obstacle to the forming a firm, efficient, extended, and united administration.' This motion occasioned a warm debate, but was at last carried by 223 against 204. Next day, these resolutions, after another long and warm debate, were ordered, by a majority of 211 to 187, to be laid before his majesty.

On the 4th of February, the earl of Effingham called the attention of the house of lords to the resolutions passed by the commons, which he considered as of the utmost importance to the constitution, and therefore moved as follows:— I. 'That it is unconstitutional for one branch of the legislature to assume a right of resolving to impede the exercise of a power vested in any body of men by act of parliament.' And, II. 'That it is unconstitutional for either house of parliament to pass any resolution to deprive the crown of its just prerogative.' The first of these motions occasioned a very warm debate. It was supported by earl Fitzwilliam, earl Fauconberg, duke of Richmond, lord chancellor, lord Sydney, and lord Gower, and opposed by lord Loughborough, earl of Mansfield, and lord Stormont, who vindicated the resolutions of the house of commons. Upon a division there appeared for it 100, against it fifty-three; majority forty-seven. Lord Effingham's second resolution, and motion for an address to his majesty on the subject, were then agreed to without a division. Next day, Lord Beauchamp rose in the house of commons, and mentioned a rumor, that another house of parliament had gone so far as to censure the proceedings of that house: whereupon he moved for a committee to inspect the journals of the house of lords; which being agreed to, the report of the committee was brought forward on the 9th, and a committee appointed to search for precedents. In the mean time, the members of the St. Alban's meeting, to promote the wished-for coalition, came to the following resolution, which was read in the house of commons on the 11th February, by Mr. Marsham:—'That an administration formed on the total exclusion of the members of either the last or present administration, would be inadequate to the exigencies of the public affairs.' This occasioned the leading men on both sides to express their wishes for a union of parties, though such difficulties were thrown in the way by each, as effectually prevented it. Mr. Fox insisted on the actual, or at least virtual resignation, of Mr. Pitt, as an indispensable preliminary step; and avowed his opinion, that the house had, and ought to have, a negative in the nomination of a minister. Mr. Pitt allowed, that no minister could continue long in office without the confidence of the house, but denied that there were any constitutional means to force him to resign, except by an address to the crown; and added that there were persons with whom he could not bring himself to act without forfeiting all character of consistency. This called up lord North, who said, that though he was not disposed to gratify the caprice of an individual, yet he would willingly do any thing for his country, and withdraw his pretensions, if they were an obstacle to a union. This candid declaration of lord North, and a similar one from Mr. Fox, procured them the applauses of both parties; and a measure was soon after suggested and acceded to which promised a speedy union. This was that his majesty should invite the duke of Portland to a conference with Mr. Pitt, for the purpose of forming a new administration, on fair and equal terms. But, after this message had been actually sent, the negociation was broke off upon the duke's insisting on a previous explanation of the word equal, which Mr. Pitt refused to give till they should meet in conference. About this time ministry were much encouraged to perseverance by the interest which the public at large took in this extraordinary contest: an address to his majesty was voted by the common council of London, thanking him for the removal of his late ministers; approving the resolutions passed by the house of lords; and declaring their determination steadily to support the constitutional exercise of prerogative. Similar addresses immediately followed from the merchants and trades of the city of London, and from the city of Norwich: in short, from every corner of the kingdom. The efforts of the coalition, indeed, made some appearance in the county of Middlesex, in Westminster, and in the great county of York, but they proved fruitless. Still however, they maintained the struggle within doors: on the 16th, the report from the committee of privileges being called for, lord Beauchamp stated, that the lords could not constitutionally interfere with the resolutions of that house; that by custom and usage, whenever they disapproved of a resolution, and vice versâ, a conference of both houses was called; whereby the house complained of, could satisfy the house complaining; and this was necessary to preserve mutual confidence between the two houses. After quoting the journals, and censuring the resolution of the lords as rash, he moved six resolutions, viz. 1. 'That this house has not assumed any right to suspend the execution of any law. 2. That it is constitutional for it to declare

its sense of the exercise of any discretionary power vested in any body of men by act of parliament. 3. That it is its duty, as entrusted with the sole grant of money, to prevent the rash exercise of any power, that may be attended with danger to the public credit. 4. That the resolutions of the 24th December last were constitutional, founded on a sense of duty towards the people, and a becoming anxiety for the preservation of the revenue, and the support of public credit. 5. That if the house had neglected to pass the said resolutions, they would have been highly responsible for the increase of those evils already too severely felt. And, 6, That the house will with moderation, but with decided firmness, maintain inviolably the principles of the constitution; equally solicitous to preserve their own privileges, and to avoid any encroachments on those of the other two branches of the legislature.' These resolutions, after a warm debate, were carried by 186 against 157.

On the 18th February Mr. Pitt being asked, previous to the consideration of the supply for the ordnance, if he had any thing to communicate relative to the Resolutions, informed the house, 'That his majesty, after a consideration of all the circumstances of the country, had not thought proper to dismiss his ministers, and that his ministers had not resigned.' This brought on a long and violent debate. Mr. Fox said it was the first instance, since the revolution, of a direct denial on the part of the crown to comply with the wishes of the house of commons; that it was the first time the house had not received a gracious answer from a prince of the house of Brunswick: that an event so new and alarming required on their part a firm but moderate, a prudent but effectual, assertion of their privileges: that the power of granting or refusing the supplies, was their constitutional and legal weapon, which he did not wish to see wielded: that to this, if necessary, they were bound to resort; but to avoid all imputation of rashness, and give ministers time for recollection, he would only move to defer the report of the estimates till Friday next. The motion was seconded by lord Surrey: but the mention of refusing the supplies was received by the friends of ministry as a threat which even the utmost madness of faction, they said, could not seriously design to execute. The very right of such a refusal was questioned. The exercise of this privilege in former times, it was said, was founded on principles which did not now exist. The settled revenues were then sufficient for the ordinary purposes of government; and it was only in cases of extraordinary demands, for the prosecution of wars disapproved by parliament, that the right of refusal was exercised; whereas, in our present state, to deny the ordinary annual supplies would be in fact to dissolve the whole fabric of government. Mr. Pitt did not deny the right of the house to refuse the supplies in times of danger from the crown, but the answer he had delivered from his majesty was not a formal answer as to an address; and he appealed to the judgment of the house whether it afforded a justifiable ground for exercising that right. Mr. Fox's motion was carried, however, by a majority of twelve; ayes 208, noes 196. Though the supplies were thus postponed, it was by no means the intention of the majority to carry matters to extremities by refusing them; and the ordnance supply was agreed to on Friday the 20th February. On the same day, Mr. Powys moved an address to the king, expressing 'the reliance of the house on his royal wisdom, that he would take such measures as might tend to give effect to the wishes of his faithful commons, already presented to his majesty.' Mr. Eden proposed an amendment by inserting after 'measures, as'—the words 'by removing such obstacles as this house had declared to stand in the way of forming a firm, extended, efficient, and united administration, such as this house had described to be requisite in the present critical and arduous state of public affairs.' The motion, thus amended, after a long debate, was carried by 197 against 177; and the address ordered to be presented by the whole house. This was done on the 25th, and on the 27th the speaker reported his majesty's answer; wherein, after 'assuring them of his earnest desire to put an end to the divisions and distractions of the country, he declared, that he could not see that this would be advanced by the dismission of his ministers; that no charge was suggested against them, nor any one of them specifically objected to; and that numbers of his subjects had expressed their satisfaction on the change of his councils.'—The consideration of his majesty's answer was deferred to the 1st of March, when a second address was ordered to be prepared. In this, the house humbly claimed it as their right duty, to advise his majesty touching the exercise of his prerogative; and, after stating the substance of their former resolutions, concluded with a repetition of their request, 'that he would be pleased to lay the foundation of a stable government, by the previous removal of his ministers.' After a long and warm debate, this address was agreed to by a majority of 201 to 189. On the 4th of March it was presented to the king by the speaker and a numerous body of the members; when his majesty returned an answer similar to the former; with the additional remarks that, 'If there were any grounds for the removal of his ministers, it ought to be equally a reason for not admitting them as part of the extended and united administration: that he had never called in question the right of the commons to offer him their advice on every proper occasion touching the exercise of his prerogative; and that he will be ready at all times to receive it, and give it the most attentive consideration.' Mr. Fox moved that his majesty's answer be taken into consideration on Monday next, which was agreed to. Next day, March 5th, he moved to postpone the mutiny bill, till after the consideration of the king's answer, on the 8th. The secretary at war was surprised at the proposal of delaying what concerned the public safety; but the motion was carried by 171 against 162. On the 8th Mr. Fox, after a long speech, wherein he recapitulated every step taken since his dismission, moved 'That an humble representation be presented to his majesty, to testify the surprise and affliction of this house on receiving the answer which his

majesty's ministers have advised to the dutiful and seasonable address of this house, concerning one of the most important acts of his majesty's government.'

This representation was the last successful effort of the coalition, and was carried only by 191 to 190. On this occasion, it would seem, they felt their strength failing them, and that they must ultimately yield; for on the 10th of March they allowed the mutiny bill to pass without a division. On the 12th Mr. Sawbridge brought forward a proposition for a parliamentary reform. The state of the representation in England, he said, was very inadequate, and infinitely more so in Scotland, where not above one man in 100 had a vote for a member. He therefore moved for a committee of enquiry on the representation of the people. Mr. alderman Newnham seconded the motion. Sir R. Clayton supported it, and declared himself ready to sacrifice his borough interest. Mr. Dempster avowed himself a friend to it, and said that 'the people of Scotland would be very grateful if one in 100 were allowed to vote; but in fact not one in 1000 had that privilege. Previous to the reign of Charles II. every 40*s*. freeholder had a vote, in Scotland, as well as in England; but in that arbitrary reign the right of voting was confined to those who held their lands from the crown, which has been continued ever since.' The motion, though supported by the abilities of both Mr. Pitt and Mr. Fox, was, after a long debate, rejected by 141 to ninety-three. On the 22d the American trade bill was passed; and on the 23d Mr Pitt was repeatedly asked, by different members, if parliament was to be dissolved, but gave no answer. All the supplies had now been voted, to the amount of £10,000,000; but except the land and malt tax bills, no money had been raised or appropriated to specific services. It was insisted, however, that the voting of the supplies would be a sufficient justification of ministry in issuing money. On the other side it was urged that the house having resolved that such issuing of the public money would be 'subversive of the constitution,' no plea of necessity could avail, as the emergency would be wilfully created by those who should advise a dissolution. Next day, however, the parliament was prorogued, and on the 25th dissolved by proclamation. This measure, by terminating a contest in which the principles of the constitution had been much agitated, ultimately established them; and many of the most distinguished characters in the house of commons and in the kingdom now wished it had been resorted to at the first forming of the coalition.

The advantages which ministers generally possess over their opponents upon the dissolution of parliament, received very considerable additions at this time. The East India Company and their servants were exceedingly industrious; and the dissenters, a powerful and active body in England, were zealous to show that they considered the members of the late coalition as men who paid no regard to principle. In short, the counties, cities, manufacturing towns, and corporations, who had so recently given the court pledges of their support, now evidenced the contemptuous light in which they viewed the adherents to the late turbulent party. Thus upwards of 160 members of the late house of commons lost their seats; and of these the far greater part were supporters of the late administration. But the consequence, however fatal to them, was perhaps on some accounts a misfortune to their country. It was well they gained not the ascendancy: yet few will think of the coalition without regretting its formation. It for a long time ruined the fortunes and destroyed the influence of Mr. Fox. See our memoir of that statesman. On the 18th of May, both houses being assembled, the commons re-elected Mr. Cornwall, the former speaker. Next day his majesty, in his speech from the throne, 'assured them of his satisfaction in meeting them, after recurring in so important a moment to the sense of his people; and of his reliance, that they were animated by the same sentiments of loyalty and attachment to the constitution which had been so fully manifested throughout the kingdom.' He directed 'their attention to the maintenance of the public credit, to the support of the revenue, and to the affairs of the East India Company: and, after warning them against adopting any new measure for the regulation of these last, which might affect the constitution, and our dearest interests at home, concluded with expressing his inclination to support and maintain, in their just balance, the rights and privileges of every branch of the legislature.' Before the motion was made for an address, Mr. Lee stated to the house, that the high bailiff of Westminster had neglected to make a return to the writ of election, on pretence of not having finished the scrutiny into the legality of the votes, and therefore moved a resolution declaring it to be 'his duty to return two citizens to serve for the said city.' This motion was seconded by Mr. Sheridan, but, after a long debate, was negatived by a majority of 283 to 136. The address was then moved and read, but the strong expressions it contained, of satisfaction and gratitude to his majesty for having dissolved the late parliament, occasioned a warm debate. As to the sense of the people, it was asked of Mr. Pitt, on what grounds he could pretend, that it had been collected in the new election, when he himself had enforced the necessity of a reform, on the very supposition that the people, as the law then stood, had little or nothing to do with them? An amendment was proposed, by the earl of Surrey, which was seconded by colonel North, but it was rejected by 285 to 114. On the 25th of May Mr. Fox presented a petition from himself, complaining of an undue return for Westminster; which was objected to by lord Mulgrave; who moved it to be the opinion of the house, that it did not come under the description in Grenville's act, no members having been returned, which after a short debate was agreed to without a division. Another petition from Mr. Fox was presented by colonel Fitzpatrick, complaining of the high bailiff of Westminster, in making no return, and requesting to be heard by council, which was granted. On the 28th a counter petition from the high bailiff was presented by lord Mahon, praying to be heard in answer to Mr. Fox; which was also granted.

On the 2d of June lord Mahon presented a petition from several electors of Westminster, praying that the high bailiff might be allowed to proceed with the scrutiny. This was ordered to be considered with the other petitions. Mr. Corbett, the hign bailiff, being called to the bar on the 7th, stated as one of his reasons for granting the scrutiny, that in a former contested election there had been only 9200 and odd votes, but that in this instance there were above 12,200; whence he supposed there could not be such an increase. On the 8th of June Mr. Ellis moved 'that the high bailiff be forthwith directed to make return of his precept, and of the members chosen in pursuance thereof.' Lord Mulgrave opposed the motion, and Mr. Fox accused ministry of interfering to deprive the Westminster electors of the exercise of their rights. Mr. Pitt replied to Mr. Fox, denied his charges as calumnious, and vindicated the high bailiff. At half past four, A. M., the motion was rejected by a majority of 195 to 117. Lord Mulgrave then moved, 'that the high bailiff of Westminster do proceed in the scrutiny with all possible despatch;' which, after another warm but short debate, was agreed to. On the 14th of June Mr. Burke made his proposed motion respecting the dissolution of parliament. In his introductory speech, he examined at great length and with much freedom, 'the dangerous principles on which that act of power had been executed and defended;' but the motion was negatived without a division.

On the 21st of June Mr. Pitt moved several resolutions, as a foundation for the act, since called the Commutation Act. He stated, that the illicit trade of the country had increased to so alarming a height as to endanger the existence of several branches of the revenue, particularly that of tea. The committee on smuggling found, that only 5,500,000 pounds of tea were sold annually by the East India Company; whereas the annual consumption in Britain was estimated, on good authority, to exceed 12,000,000; so that the illicit trade in this article was more than double the legal. To remedy this evil, he proposed to lower the duties to so small an amount, as to make the profit on the illicit trade not adequate to the risk; and, as this would cause a deficiency in the revenue of £600,000 a-year, to make it up by an additional tax on windows; which, he showed, would prove a commutation very favorable to the people, and at the same time tend to relieve the East India Company. The bill was passed, after a warm opposition, in both houses.

Mr. Pitt next entered upon the arduous task of regulating the East India Company's affairs. This he proposed to do by three bills. The first was to enable the company to divide eight per cent. interest on their capital. By the dissolution, the committee on this business had been prevented from making any progress; and, though it had been resumed as early as possible in this session, yet before any report could be made the house was under the necessity of either authorising the company to make a dividend, without any information relative to their finances, or to endanger their credit by refusing its consent. The disgraceful and dangerous consequences of this dilemma were urged by the late ministers, who proposed as the safest measure to make the dividend only six per cent. It was admitted, on all sides, that the affairs of the company were not in a flourishing condition; and it was stated as an act of mockery and injustice to the public, that, while the company were applying to parliament for a large pecuniary relief, they should yet divide among themselves as much as they had divided in their most flourishing circumstances. It was replied, that the company's distresses had not arisen solely from their own fault, as they had partaken in the general calamity occasioned by the war. The bill passed in the lower house without a division, and in the upper, after a warm debate, by a majority of twenty-eight to nine.

Mr. Pitt's second bill allowed the company a respite of duties; enabled them to accept of bills beyond the amount prescribed by former acts; and established their future dividends. Mr. Pitt's third bill, 'for the better government of the affairs of the East India Company,' though formed upon the same model with the one which he had brought into the last parliament, yet differed considerably from it in several points. The powers of the board of control, which, in contrast to the plan of the late ministry, and in compliance with the temper of those times, were kept as subordinate as possible, were now greatly enlarged. In urgent cases, which might not admit of delay, and in cases of secrecy, which might not admit of previous communication, they are enabled to transmit their own orders to India, without being subject to the revision of the directors. It also vests in the governor general and council an absolute power over the other presidencies in all points relative to transactions with the country powers, and in all applications of the revenues and forces in time of war; with a power of suspension in case of disobedience. The second part of it contains various internal regulations. The clauses relative to the debts of the nabob of Arcot, to the disputes between him and the rajah of Tanjore, and to the relief of dispossessed zemindars, and other native land-holders, were adopted from Mr. Fox's bill, with some exceptions and limitations. Various restrictions are also laid upon the patronage of the directors, and retrenchments ordered in the company's establishments. The third part relates to the punishment of Indian delinquents. All British subjects are made amendable to the courts of justice in England, for all acts done in India. The receiving of presents is declared to be extortion; and disobedience of orders and all corrupt bargains to be misdemeanors and punishable. Governors of settlements are empowered to seize all persons suspected of illicit correspondence, and to send them to England, if necessary. Every servant of the company is required, on his return to England, to deliver in upon oath to the court of exchequer, an inventory of his real and personal estates, and a copy of it to the directors for the inspection of the proprietors; and in case any complaints should be made thereon, by the board of control, the court of directors, or any three proprietors possessing stock conjunctly to the amount of £10,000, the court of exchequer is

required to examine the person upon oath, and to imprison him till he shall have answered the questions put to him to their satisfaction. Any neglect or concealment is punished by imprisonment and forfeiture, and incapacity of ever serving again. Lastly, for the more speedy prosecution of crimes committed in the East Indies, a new court of justice is erected; consisting of three judges, appointed by the three courts, four peers, and six members of the house of commons: the four peers to be taken by lot out of a list of twenty-six; the six commons out of a list of forty; and both lists to be chosen by ballot. Liberty is given to the party accused, and to the prosecutor, to challenge a certain number of these. All depositions of witnesses taken in India, and all writings received by the directors, with copies of those sent out by them, shall be received as legal evidence. The judgment of the court is made final, and extends to fine, imprisonment, and declaring the party incapable of ever serving the company. This bill was most strenuously opposed in every stage of its progress through both houses. The extension of the power of the board of control was objected to, as incongruous to the principle, and insufficient for the purposes of the bill. The enlarged powers conferred on the governor general were objected to, as an inversion of the order of government, which requires that authority exercised at a distance from the controlling power, and subject to almost insuperable temptations, should be as limited as possible. In the second part, the clauses, it was said, respecting disobedience, the commencing of wars, and the succession to offices by seniority, were rendered nugatory by exceptions and limitations. The inefficiency of the clause relative to oppressed native landholders, the ruinous delay in the mode of proceeding for their relief, and the abuses to which it was liable, were strongly objected to: but these clauses were all defended on the necessity of precautions against events, wherein a discretionary power might be neeessary. But the last part of the bill met with the most violent opposition. The obligation to swear to the amount of property, and the powers granted to courts of putting interrogatories, to force persons to criminate themselves, were inquisitorial proceedings unknown to Britons. The minister was, however, supported in referring the bill to a committee of the whole house, by 276 against sixty-one: and, in the discussions which took place in the committee, Mr. Pitt acted in a manner, which, on after occasions distinguished his mode of conducting the national business. He did not come forward like the head of a party, with a measure complete in every part, confident of the support of his followers; but, while he himself proposed some essential alterations, he also adopted those suggested by others, from whatever side of the house they came. Thus, from the observations of Mr. Dempster, Mr. Eden, and lord North, the clause requiring persons returning from India to give an account of their property upon oath, was relinquished by Mr. Pitt; and there were no fewer than twenty-one new clauses added to the bill in the committee. The whole afterwards suffered very severe animadversions from Mr. Sheridan and Mr. Fox; but the bill passed both houses by very large majorities.

On the 30th of June Mr. Pitt opened the budget, which consisted of new taxes on candles, coals, bricks, hats, horses, linens, cottons, ribands, ale and beer licenses, game licenses, paper, hackney coaches, gold and silver plate, lead, postages, and silk, all of which passed with little opposition, except the additional duty on coals, which was rejected. These taxes Mr. Pitt calculated to produce £930,000. On the 30th of July Mr. Burke, after a long speech on East India affairs, wherein he mentioned the famine in Oude, the murder of Almas Ali Cawn, a native of rank, who had been, by order of governor Hastings, betrayed, seized, and put to death, without any charge, trial, or condemnation, and the treatment of the princesses of Oude, who had been seized, plundered of their property, and turned into the streets in misery, with a variety of other cruelties practised by the chief servant of the company, moved 'that there be laid before the house copies of all papers relative to the seizing and putting to death of Almas Ali Cawn,' which was seconded by Mr. Sheridan, and agreed to. Mr. Burke next moved 'that there be laid before the house copies of all papers relative to the money demanded of the princesses of Oude in 1782;' which was seconded by major Scott. He then moved, that there be laid before the house the produce of the sale of the jewels, &c., taken from these princesses; which was objected to by Mr. Pitt, who moved the order of the day, which was carried. On the 2d of August, Mr. Henry Dundas, after a suitable introduction respecting the bravery and loyalty of the Scots Highlanders, moved for 'leave to bring in a bill to repeal the act, 25th Geo. II., which confiscated certain estates in Scotland, and to empower the crown to restore them to the right heirs, under certain restrictions.' This popular motion met with universal approbation from the whole house. The only opposition the bill received was in the upper house from lord Thurlow and lord Loughborough; whose chief objection was founded upon its not extending to the estates forfeited in 1715. On the 3d of August Mr. Dempster moved for leave to bring in a bill for the abolition of the remains of vassalages in Scotland; which was granted: and on the 20th of August the session was closed with the usual formalities,

The second session of this parliament was opened, January 25th, 1785, by a speech from the throne, wherein his majesty particularly recommended the final adjustment of the commercial intercourse between Britain and Ireland, and the further suppression of smuggling. The first business of importance that came before the house was the Westminster election, the contest about which occasioned repeated discussions and divisions. At last, upon a motion of Mr. Alderman Sawbridge, that the high bailiff be ordered to make a return forthwith, which was agreed to by a majority of 162 to 124, the scrutiny was quashed, and lord Hood and Mr. Fox returned on the 4th of March. On the 16th of February Mr. Francis called the attention of the house to the civil establishment of Bengal, which, he said

had risen from £126,000 (the sum in 1774) to the enormous sum of £927,945 a year (a sum greater than the civil list establishment of Britain), in consequence of the whole power having devolved on governor Hastings. He therefore moved, 'that a statement be laid before the house, of the salaries and emoluments of the officers of revenue in Bengal, in 1776, 1782, and 1783; with a probable estimate of the expenditure from the 30th of April 1784, to the 16th of May 1785. The motion, after some opposition from major Scott and Mr. Pitt, was agreed to.

On the 18th of February, the earl of Carlisle made a motion in the house of lords, respecting the nabob of Arcot's debt. So early as April 1782 Mr. Dundas, in the house of commons, had moved a resolution relative to the suspicious nature of these debts, and their mischievous influence upon the government of the Carnatic. In Mr. Pitt's bill, passed in last session, it was enacted, respecting the origin and justice of these claims, that the court of directors shall 'give such orders to their presidencies and servants abroad, for completing the investigation thereof, as the nature of the case shall require; and for establishing in concert with the said nabob such funds, for the discharge of those debts which shall appear justly due, as shall be consistent with the rights of the said united company, the security of the creditors, and the honor and dignity of the said nabob.' The court of directors, in consequence of the trust reposed in them, prepared orders to be sent to their council at Madras, in which, after stating the suspicious circumstance under which many of the debts appeared to have been contracted, they direct them, in obedience to the positive injunctions of the act, to proceed to a complete investigation of their nature and origin. These orders, however, were rejected by the board of control, and a new letter drawn up, in which the claims of the creditors were all, with some little limitation, established, and a fund for their discharge assigned out of the revenues of the Carnatic. These orders were publicly read at a meeting of the nabob's creditors in England; and, on this ground, the earl of Carlisle moved, 'that there be laid before the house copies or extracts of all letters or orders issued by the court of directors, in pursuance of the injunctions in the regulating act.' The dangerous consequences of suffering the board of control to supersede the authority of an act of parliament, and the suspicious circumstances of its clandestinely interfering in an enormous money transaction, the management of which was delegated by the act to other persons, were strongly urged by the noble mover, and by lord viscount Stormont. Lord Loughborough insisted, that, even allowing the board of control not to have been guilty of an arbitrary assumption of power, yet their orders authorise transactions of a most corrupt and nefarious nature, highly injurious to the company, and ruinous to the country. Lords Sydney, Walsingham, and lord chancellor, opposed the motion: and lord Rawdon was afraid the papers called for might convey dangerous information to our enemies. The motion was rejected without a division.

On the 23th a similar motion was made by Mr. Fox in the house of commons, when Mr. Dundas himself opposed it, and defended the board of control, insisting that they are enabled, by a clause in the act, to originate orders in cases of urgent necessity, and transmit them to India. He also justified the debts themselves, and cautioned the house not to imbibe prejudices against a board of control but newly instituted. Mr. Smith, chairman of the court of directors, admitted that some debts, ordered by the board to be paid, were just, but that others were of a very different complexion. Mr. Burke, in a long and eloquent oration, entered fully into the subject. He contended, that the board of control had no right to intermeddle in the business; but, even admitting such right, they were bound to make the same enquiries as the directors. He stated, 'that ever since the establishment of the British power in India, Madras and its dependencies, which before that time were among the most flourishing territories of Asia, had wasted away and declined so much, that in 1779 not a single merchant of eminence was to be found in the whole country. During this period of decay, nearly a million had been drawn from it annually by English gentlemen, on their own private account only. Mean time the nabob had contracted a debt with the company's servants, to the amount of £880,000; which, in 1767, was settled at ten per cent interest: 1,000,000 sterling had been lent by British subjects to the merchants of Canton, in China, at 24 per cent. In 1777 a second debt of £2,400,000, and a third of £160,000, called the cavalry debt, were settled by the nabob of Arcot at twelve per cent. The whole of these four capitals, amounting to £4,440,000, produced annuities of £623,000 a-year, more than one-half of which stood chargeable on the public revenues of the Carnatic. These annuities, equal to the revenues of a kingdom, were possessed by a few individuals of no consequence, situation, or profesion.' Mr. Burke then examined the particular grounds of these debts.

Mr. Burke next called the attention of the house to the ruined condition of the country; entered into a statement of the internal politics of the Carnatic, and the causes of the war with Hyder Ali; describing its desolate ravages, while it raged for eighteen months without intermission, from Madras to Tanjore; and the redoubled horrors of the famine that ensued, insomuch that when the British armies traversed the central provinces for hundreds of miles in all directions, in their whole march they did not see one man, woman, child, or four-footed beast of any description! And what, added he, would a virtuous, an enlightened ministry do, on the view of such ruins—of such a chasm of desolation as yawned in the midst of those once flourishing countries?—They would have reduced their most necessary establishments; they would have suspended the justest payments; they would have employed every shilling derived from the productive parts, to re-animate the powers of the unproductive. While performing this fundamental duty to justice and humanity, they would have ordered the corps of fictitious creditors, whose crimes were their claims, to keep an awful distance, to silence

their inauspicious tongues, to hold off their profane unhallowed paws from this holy work; they would have proclaimed with a voice that should make itself heard, that on every country the first creditor is the plough; that this original indefeasible claim supersedes every other demand. This is what a wise and virtuous ministry would have done and said. They would thus have laid a solid foundation for future opulence and strength. But, on this grand point of the restoration of the country, there is not one syllable in the correspondence of the ministers. They felt nothing for a land desolated by fire, sword, and famine; their sympathies took another direction; they were touched with pity for bribery, so long tormented with a fruitless itching of its palms; their bowels yearned for usury, that had long missed its monthly harvest; they felt for peculation, which had been for so many years raking in the dust of an empty treasury; they were melted into compassion for rapine and oppression, licking their dry, parched, unbloody jaws. These were the objects of their solicitude. As to the public debt, he afterwards said, nothing was provided for it, but an eventual surplus to be shared with one class of the private demands after satisfying the two first classes. Never was there a more shameful postponing of a public demand, which, by the practice of all nations, supersedes every private claim. By the mode of settling between the nabob and the company, the public and private debts are made to play into each other's hands a game of utter perdition to the unhappy natives. The nabob falls into an arrear to the company. The presidency presses for payment. The nabob answers 'I have no money.'—'Good: but the soucars (bankers) will supply you on the mortgage of your territories.' Then steps forward some Paul Benfield, and from his grateful compassion to the nabob, and his filial regard to the company, unlocks the treasures of his virtuous industry; and for twenty-four or thirty-six per cent., on a mortgage of the territorial revenue, becomes security to the company for the nabob's arrear. In consequence of this double game, the whole Carnatic has, at one time or other, been covered with these locusts, the English soucars. Far from painting, Mr. Burke added, he did not reach the fact, nor approach it. This tyrannous exaction brought on servile concealment, and that again called forth tyrannous coercion; till nothing of humanity was left in the government; no trace of integrity, spirit, or manliness in the people, who drag out a precarious and degraded existence, under such a system of outrage upon human nature. The motion, however, was rejected by a majority of 194 to ninety-seven.

On the 22nd February Mr. Pitt moved, that the propositions laid before the Irish parliament by Mr. Orde, for adjusting the intercourse between Britain and Ireland, be read; after which he remarked on the illiberal treatment of Great Britain to her sister kingdom in former times, and inveighed much against that narrow spirit which tended to exalt or enrich one people of the same empire at the expense of another. After obviating many objections to the propositions, he moved a resolution, 'That it is highly important, and for the general interest of the British empire, that an intercourse be finally settled between Great Britain and Ireland on equal terms; and that each country should have a like participation of trade, on Ireland securing that she will pay, in proportion to her growing wealth, such share of the public expense as may arise from the surplus of her revenue in time of peace.' Mr. Marshman thought Britain for seven years past had been giving too much. Lord North protested against a full participation of our trade with Ireland. Mr. Dempster approved of the propositions as just, and Mr. Fox spoke chiefly against beginning the business in Ireland.

On the 3rd March, Mr. Pitt brought forward the propositions, which were objected to by Sir W. Cunningham, as hurtful to the landed interest of Scotland, and ruinous to the corn trade and farmers. On the 8th a petition from the inhabitants of Glasgow was presented by the lord advocate against them; as well as from Manchester, Liverpool, and several other towns in England. A petition likewise from Manchester, Warrington, and some other towns in Lancashire, and Cheshire, subscribed by 80,000 persons, was presented by Mr. Stanley, against the late tax on fustians, calicoes, &c., which, after examining witnesses on the subject, was repealed. In the course of receiving these various petitions, it was agreed to revive the act of 1689, against receiving any petition not subscribed by all the petitioners.

Mr. Pitt, on the 18th of April, once more brought forward the popular subject of a parliamentary reform. Having formerly pledged himself to exert all his official weight in favor of it, he now employed his utmost abilities in recommending it to the house; and, after a speech of nearly three hours, moved, 'That leave be given to bring in a bill to amend the representation of the people of England in parliament.' The plan he now proposed was founded on the same principles with his former one, but differed in several particulars. He proposed to transfer the right of election from thirty-six of such boroughs as had already fallen, or were falling, into decay, to the counties, and to such chief towns and cities as were not represented: that a fund should be provided for giving the owners and holders of such disfranchised boroughs, an appreciated compensation: that the taking of this compensation should be a voluntary act of the proprietor; and, if not now accepted, the money should be laid out at compound interest, until it became an irresistible bait to such proprietors. He also proposed to extend the right of voting for knights of the shire to copy-holders. Mr. Fox approved of the spirit of the motion, but objected to the mode, particularly the purchasing of the boroughs; though he was not against transferring the right of electing representatives from them to the counties, and chief towns and cities. The principal arguments in favor of a reform were derived from the present partial and defective representation of the kingdom at large. It was argued, that an active, reforming, and regulating princi-

ple, which kept pace with the alterations in the state, was necessary to preserve the constitution in its strength and vigor: that, as any part of the constitution decayed, it had always been the wisdom of the legislature to renovate and restore it, by such means as were most likely to answer the end proposed: and that hence had arisen the frequent alterations that had taken place, with regard to representation, both before and at the Revolution. The chief objections to a reform, were, that it was not called for by the people in general; nor in particular by the unrepresented large towns and cities, which had the best right to claim the benefit of such a measure; that, if innovations in name of reform were once introduced, men's minds differed so much on the subject, that none could know to what extent they might be carried: that what were called rotten boroughs were often represented by gentlemen who had the greatest stake in the country; and consequently were as much interested in its welfare, and that of the constitution, as any other representatives, in whatsoever manner they were chosen, could be; and, in fine, that while the rights and liberties of the people were secure under the present representation, it was hazardous to make any alteration. The motion, after many extraneous arguments, and much personal animosity on both sides, was negatived by 248, against 174.

Previous to the opening of the budget Mr. Pitt called the attention of the house to the national finances; of which he gave a very favorable view, from the increase of the revenue both from the old and new taxes. The whole of the public expenditure he estimated at £14,400,000 per annum. He then gave a comparative statement of the produce of the taxes ending 5th of January and 5th of April 1784, and of those ending at the same periods in 1785. The first of these he stated at £2,585,000; the second at £2,198,000; the third at £2,738,000; and the fourth at £3,066,000. From the increased produce of the taxes in these quarters, he made various calculations on their probable amount for the whole year: the highest of which he stated at £12,600,000, and the lowest at £12,000,000 per annum. The produce of the taxes, supposing them to continue stationary, would, on the average of the last quarter, amount to £12,264,000. The land and malt tax, £2,500,000, added to this, would make £14,764,000. Hence he expected an overplus of about £1,000,000 annually, which he would purpose to be appropriated as a sinking fund, to be applied to the discharge of the national debt. As he considered this estimate to be very low, he congratulated the public on the pleasing prospect. But, though he wished the house to consider the measure now announced, he did not intend to put it in execution till the ensuing year. To afford proper information, however, he moved, that the increase of the amount of the taxes, from 1783 to 1784, be laid before the house. His calculations, however, were much objected to. Mr. Sheridan doubted if the new taxes would be so productive as Mr. Pitt alleged, and moved that there be laid before the house the nett produce of taxes imposed last session, up to the latest accounts. Mr. Dempster congratulated the minister upon his plan of appropriating a sum to liquidate the national debt. But he hoped this would be done so as to place it beyond the reach of any ministry, and exempt from all changes in administration: £1,000,000, he said, with compound interest, would in fifty years, pay off £218,000,000. The aggregate amount of the supplies, voted in 1785, was stated by Mr. Pitt at £9,737,868. The subjects of the new taxes, imposed to raise the sum of £413,000, were male and female servants, retail shops, post horses, gloves, pawn-brokers, and coach-makers licenses, game certificates, bachelors, wheel carriages, and attorneys. Of these the tax on maid servants, and the shop tax, were the most unpopular. On the 14th of June almost the whole shop-keepers of London and Westminster unanimously expressed their displeasure at the latter, by shutting the windows of their shops during the whole day, as well as by many satirical inscriptions on the window shutters. The example of London was followed at Bath, Bristol, Norwich, and many other places.

On the 27th of April, the lord advocate introduced a bill for diminishing the number and increasing the salaries of the judges of the court of session in Scotland. The former branch of it, being opposed in the committee, on the 3rd of June, by lord Maitland, Mr. Eden, and Sir James Johnston, was withdrawn, and the bill for increasing their salaries was passed by the house. On the 12th of May the Irish propositions were brought under the consideration of the house, and occasioned a number of warm debates from that day to the 30th, when several amendments, suggested by opposition, were admitted by ministry. On the 31st a committee was appointed to confer with the lords on them, and present to their lordships the twenty resolutions, to which the house had agreed, on the commercial intercourse with Ireland, along with the evidence.

On the 25th of June Mr. Pitt moved an address to his majesty, which after a violent debate was agreed to, and presented on the 29th by the lord chancellor, the speaker of the house of commons, and members of both houses. The address represented, that the two houses had 'taken into their most serious consideration the important subject of the commercial intercourse between Britain and Ireland, recommended in his majesty's speech, and the resolutions of the parliament in Ireland; and, after a careful investigation of the various questions arising out of the subject, had come to the resolutions now presented, which they trusted would form the basis of an advantageous and permanent settlement between the two kingdoms: that they had proceeded on the foundation of the rights of the parliament of Ireland, but had found it necessary to introduce some modifications, and to add such conditions as appeared necessary in establishing the proposed agreement as just and equitable; and for securing to both countries those advantages, to an equal enjoyment of which they are to be entitled.' The address concluded, by expressing their trust, 'that in the whole of its progress, reciprocal interests and

mutual affection will ensure that spirit of union so necessary to the great end in view;' and their 'confidence, that the final completion of the measure, while it tends to perpetuate harmony and friendship between the two kingdoms, by augmenting their resources, uniting their efforts, and consolidating their strength, will afford his majesty the surest means of establishing a lasting foundation, in the safety, prosperity, and glory of the empire.' To this address his majesty returned a suitable answer, and on the 2nd of August Mr. Pitt introduced a bill for the commercial arrangement, without opposition; after which both houses adjourned to the 27th of October.

Years of peace, however favorable to arts, sciences, and human happiness, yet, as they afford no field for displaying the talent of the hero, so they yield few materials for employing the pen of the historian; unless when important constitutional questions occur in the senate. The principal transactions of the succeeding seven years, from this period to the commencement of the French Revolution, may, therefore, be comprised in little bounds.—Previous to the commencement of the third session of parliament, the French court had issued an edict prohibiting the sale of various English manufactures in that kingdom; and a similar edict had been published by the emperor, totally prohibiting the importation of any British goods into the Austrian territories. The latter had been excited to this measure by certain articles in a late treaty between the British monarch, as elector of Hanover, and the king of Prussia. To counteract proceedings so prejudicial to the trade of England, commercial treaties were entered into with the courts of Petersburg and Versailles. Oriental politics were also revived by the return of governor Hastings, as well as by petitions from the English inhabitants of India, against several clauses in Mr. Pitt's act: particularly those which established an inquisition into their fortunes, and took from them trial by jury. His majesty opened the session on the 24th of January 1786, with a speech, informing parliament, 'that the disputes, which threatened the tranquillity of Europe, had been brought to an amicable conclusion; that the growing blessings of peace were experienced in the extension of trade, and improvement of the revenue; and that the resolutions of last session had been communicated to the parliament of Ireland, but that no effectual steps had yet been taken to make any farther progress in that salutary work.' Among the subjects which early engaged the attention of parliament was a variation from the usual form, introduced into the mutiny bill, to make it include officers upon half pay, and by brevet; which was objected to in the lower house by colonel Fitzpatrick, and general Burgoyne, but passed by seventy-nine to seventeen. In the upper house it was still more violently opposed by lords Stormont, Loughborough, and Sandwich; but the amendment was rejected by forty-two to eighteen. The next important object was the plan of fortifications, originally suggested by the duke of Richmond, and now introduced into the house of commons by Mr. Pitt, who moved it as 'an essential object for the safety of the state.' The motion was supported by lord viscount Mahon, lord Hood, Sir C. Middleton, captains Berkeley, Bower, and Luttrell, and Messrs. H. Browne and Dundas. It was opposed by Mr. Bastard, Sir W. Lemon, general Burgoyne, lord North, colonel Barre, and Messrs. Walwyn, Marsham, Wyndham, Courtney, Fox, and Sheridan. The latter entered largely into the question, particularly as it might affect the constitution. 'When we talk,' said he,'of a constitutional jealousy of the military power of the crown, what is the object of our suspicion? what but that it is in the nature of kings to love power, and of armies to obey kings? This is doubtless plain speaking upon a delicate subject, but the question demands it; and I cannot be suspected of alluding either to the present monarch on the throne, or to the army now under his command. But the possible existence of sinister intentions must enter into the mind of every man who admits an argument on the subject. If this were not the case, we deride the wisdom of our ancestors in the provisions of the bill of rights, and mock the salutary reserve, with which we annually entrust the executive magistrate with the defence of the country.' He concluded by advising all sides of the house 'to assist in defeating a measure, which, under pretence of securing our coasts, strikes at the root of our great national defence, and at the heart of the constitution itself.' This speech appears to have had great weight with the house; for the votes upon the division were exactly equal, both the ayes and the noes amounting to 169; a circumstance unparalleled in the annals of parliament; and the speaker acquired no small applause from the country gentlemen, for giving his casting vote against the motion. Mr. Pitt, however, on the 17th of May, revived the question, by moving, 'that an estimate of the expense of such part of the plan of fortifications, as might appear most necessary to be carried into immediate execution, be referred to a committee.' The money necessary for completing this moderate plan he stated at £400,000. But this motion was received with such marked disapprobation by the house that it was withdrawn; and the sum of only £59,770 voted the 7th of June for completing the new works already begun at Portsmouth and Plymouth.

Another measure of considerable consequence repeatedly engaged the attention of parliament, viz. the amendment and reduction of the militia laws. A bill for this purpose, after repeated debates and divisions, passed both houses. On the 9th March Mr. Marsham introduced a bill to exclude persons holding places in the navy and ordnance from voting at elections, which was opposed by Mr. Pitt, lord Mulgrave, and Messrs. Dundas, Grenville, Pye, Drake, Gascoyne, Sir E. Deering, and Sir C. Middleton; and supported by Messrs. Fox, Jervoise, Sawbridge, and Sheridan; but rejected by 117 to forty-one. Though Mr. Pitt opposed this bill, upon the principle that no bad effects were felt from the interference in elections of the persons it was proposed to exclude, yet he supported lord Mahon's bill for regulating elections, which

was drawn up on liberal principles, and was also supported by the earl of Surrey, Sir J. Mawbey, Sir W. Dolben, &c.; but opposed by Messrs. Young, Powys, and Bastard, as well as by Mr. W. Grenville, who styled it a system of Utopianism and impractibility. It was passed, however, by a majority of ninety-eight to twenty-two, and sent up to the house of lords; where it was powerfully recommended by earl Stanhope, and supported by the marquis of Caermarthen and earl of Hopeton: so that it passed the second reading by a majority of eleven to four; but was thrown out at the third, by thirty-eight to fifteen votes.

Mr. Pitt having on the 7th March moved for a committee on the annual national income and expenditure, their report was laid before the house on the 21st, and copies delivered to the members on the 27th. Two days after Mr. Pitt opened his budget, by congratulating parliament on the pleasing prospect which the report afforded, after the country had emerged from a most unfortunate war, which had added such an accumulation to the national debt, before immense, that surrounding nations expected we should sink under the burden. Instead of this he showed, by various estimates, that our resources were such, that they were not only equal to the extraordinary demands without any additional burden upon the people, but could afford £1,000,000 annually to be allotted to a sinking fund, according to his plan formerly proposed, for reducing the national debt. This sum he proposed to be placed in the hands of commissioners in quarterly payments, to commence on the 5th July 1786. This million, he showed, by compound interest, would, in twenty-eight years, produce an annual income of £4,000,000. Mr. Fox, among other objections to this plan, said, 'that twenty-eight years was too long a period to look forward for its effect, as 'before that term we might probably have another war;' and afterwards moved, as an amendment, that if £1,000,000 be in the hands of the commissioners, when a new loan is proposed, they shall take £1,000,000 of the loan, and thus receive the bonus for the public. Mr. Pitt congratulated Mr. Fox upon the liberality of this motion, which was unanimously agreed to. A message from the king being now delivered to both houses, stating, 'That it had not been found possible to confine the expenses of the civil list within the annual sum of £850,000,' Mr. Pitt moved, that 'a sum be granted to defray all incumbrances, and that £900,000 should remain for the annual expenditure of the civil list;' which, after some debate, wherein the motion was contrasted with Mr. Burke's bill (which had enacted, that no debt should be incurred on the civil list), was agreed to.

On the 5th of May Mr. Pitt moved, 'to transfer a part of the duties on wines from the customs to the excise.' The reason he gave was, that the revenue on foreign wine was inferior by £280,000 to what it was forty years ago. Mr. Dempster recommended the utmost caution in passing bills that affected the liberties of the subject. Mr. Fox oposed the bill on the same ground, as an experiment peculiarly rash. But though it was also opposed by earl Surrey, and Messrs. Sawbridge, Watson, Courtenay, and Sheridan, it passed by seventy-one to thirty-two; and in the house of lords without a division. In June a message was delivered from the king, recommending 'an enquiry into the condition of the woods, forests, &c., belonging to the crown, that they might be made as productive as possible.' A bill was accordingly brought in, which contained some clauses that were opposed in both houses, but chiefly in the upper, where they occasioned a division of twenty-eight to eighteen; and where a protest was entered against the act, by the duke of Portland, the earls of Sandwich and Carlisle, Dr. Wilson bishop of Bristol, and lord Loughborough. The commissioners appointed were, Sir C. Middleton, colonel Call, and Mr. A. Holdsworth.

Mr. Wilberforce introduced a bill for amending the criminal laws, which was so much approved in the house of commons that it passed without opposition: but, in the house of lords, it was treated with the severest invective by lord Loughborough, who, during the absence of lord Thurlow, took the lead in all proceedings of that assembly; pleading the cause of experience against innovation, and of liberty against political encroachment. The bill was therefore rejected without a division. East India affairs also occupied a good deal of the attention of parliament during this session; but we have already descanted so largely on these subjects that we shall not here resume them, farther than to mention, that Mr. Francis' bill, 'to extirpate,' as he expressed it, 'the principal evils of Mr. Pitt's bill,' was rejected; that Mr. Dundas's bill for amending the same act (which Mr. Burke styled 'a full grown monster of tyranny' in comparison of which Mr. Pitt's bill was only 'an abortion'), by increasing the power of the governor general, was passed; that an amendment moved upon it by Mr. Sheridan, to divide it into two bills, the one respecting the political, and the other the judicial government, was adopted; and that, after repeated motions for papers on India affairs, the refusal of some, and production of others, the exhibition of charges against Mr. Hastings, and the examination of various witnesses on the business, grounds of impeachment were found against him, by a majority of 119 to seventy-nine. About the close of the session a singular occurrence was mentioned in the house of lords. A bill had been introduced relative to the prize money obtained by the capture of St. Eustatius: lord Rodney said, he had lodged the papers of the merchants of that island in the secretary of state's office, as documents of treason against them; but, on calling for them in justification of his conduct, he was astonished to find that they had been carried off, and were no where to be found. Mr. Knox was called in proof of this fact. In consequence of this, the bill was rejected without a division; and two causes for £13,000 then depending before the court of appeals, at the instance of Messrs. Lindo and Ingram, against lord Rodney and the captors of St. Eustatius, were decided against the captors with full costs, on the 5th July. On the 11th the session was ended. On the 2d August his

majesty's life was attempted by a mad woman, named Margaret Nicolson, who, under pretence of presenting a petition, made two thrusts at his breast with a knife, both of which fortunately failed. His majesty with great temper exclaimed,—'I am not hurt—Take care of the poor woman—Do not hurt her.'

On the 26th September 1786 the treaty of commerce and navigation, between France and Great Britain, was signed at Versailles. This treaty was extremely popular. It was not only very advantageous to England, but seemed to be the fruits of a triumph of liberal sentiments and enlarged views, over ancient prejudices and mercantile jealousy. Its general principle was, to permit the mutual exchange of every species of commodity, except warlike stores. It was recommended to the sanction of parliament in his majesty's speech, at their meeting on the 24th January 1787. But in the debate on the address, and on the 12th February (the day appointed for taking the treaty into consideration), it was censured by opposition, both as to its commercial and political tendency. Mr. Fox argued at great length 'that France was the inveterate and unalterable enemy of Britain; that the incessant object of her ambition was universal monarchy, and from us alone she feared to be traversed in her pursuit.' Mr. Pitt said, 'his mind revolted from the supposition, that any nation could be unalterably the enemy of another. It had no foundation in history or experience. It was a libel on political society, and supposed the existence of a diabolical malice in our original frame. In a commercial view, this treaty would enrich this nation. It would be advantageous to France, but more so to us, &c. The premier's resolutions, approving of the different articles in the treaty, were all successively carried by large majorities in both houses. He soon after moved to lower the duties on Portuguese, Spanish, and Madeira wines, one-third below those on French wines, which was agreed to.

On the 26th February he moved several resolutions on the consolidation of the customs, which were so obviously advantageous, that they were agreed to with very little debate. Mr. Burke, instead of opposing the measure, returned thanks to Mr. Pitt as the author of it.

On the 7th May Mr. Dundas opened what he called the budget of India; upon which he moved several resolutions on the state of our revenues there, which, after some opposition, were passed without a division. On the 26th April Mr. Pitt introduced a bill for farming the tax on post horses, as a remedy for the frauds committed in that branch of revenue. This mode of collection was reprobated as unconstitutional, by opposition; but, after a warm debate, was carried by 162 to ninety-five. Previous to this decision Mr. Fox moved a repeal of the shop tax: which, after some debate, was rejected by 182 to 147. A bill for amending the laws respecting lotteries was introduced by ministry, and passed the house of commons; but, having been amended by the lords, was thrown out by the commons; and a new bill introduced, which passed both houses. Lord Rawdon called the attention of the house of lords to the convention with Spain, and moved a resolution disapproving of it. He said, that 'we certainly might have made a better bargain, than to yield a tract of land as large as Portugal, which produced cotton, indigo, logwood, and sugar, for a tract of twelve miles, and the liberty to cut logwood in Honduras Bay. It was an act of ingratitude, too, he said, to deliver up the inhabitants of Musquito shore to their old implacable enemy. Lord Caermarthen and the duke of Richmond opposed the resolution, which was defended by lord Stormont, but rejected by fifty-three to seventeen.

Two constitutional questions, respecting the Scottish peerages, were brought before the lords during this session. The first was on a motion by lord viscount Stormont, that the earl of Abercorn and duke of Queensberry, who had been chosen of the number of the sixteen peers, having been created peers of Great Britain, thereby ceased to sit as representatives of the peerage of Scotland.' This motion was supported by the bishop of Landaff, the earls of Hopeton and Fauconberg; and opposed by lord Morton, but passed by fifty-two to thirty-eight. The second question arose from the election of the earl of Selkirk and lord Kinnaird, in the room of Queensberry and Abercorn; wherein the dukes of Queensberry and Gordon had voted contrary to the resolution of 1709. Lord Hopeton therefore moved, on the 18th May, 'That a copy of that resolution should be transmitted to the lord register of Scotland, as a rule for his future proceeding in elections: which was opposed by the duke of Richmond, lords Thurlow, Morton, and Sydney; but supported by lords Kinnaird, Stormont, and Caermarthen; and carried by fifty-one to thirty-five.

The question respecting the hardships protestant dissenters labored under by the test act, was introduced by Mr. Beaufort on the 28th March, and urged with great strength of reasoning. One invincible argument he drew from 'the hardship it imposed on conscientious ministers of the church of England itself. By the positive precepts of their religion, they were enjoined to warn from the sacred table all blasphemers, and persons of a profligate life: yet to these very persons, if they demanded it as a qualification, they were compelled by the test act to administer the sacrament. If there were any thing serious in religion, if the doctrines of the church of England were not a mere mockery of the human understanding, if to talk of peace of mind here, and of eternal consequences hereafter, were not the idle babblings of superstition, no pretext of state policy could justify this enormous profanation, this monstrous attempt, as irrational as impious, to strengthen the church of England by debasing the church of Christ.' The motion was supported by Mr. Fox, lord Beauchamp, Sir James Johnston, Sir Harry Houghton, and Mr. Smith, but opposed by lord North, Mr. Pitt, and Sir W. Dolben; and rejected by 178 to 100.

The English law has long been disgraced by its severity to debtors. Imprisonment for an unlimited period had been the practice since the reign of Charles II. On the 22d May a bill to relieve unfortunate persons of this description was read the second time in the house of lords,

and supported by the duke of Norfolk; who stated that there were 3000 debtors confined in the different prisons. The bill was supported by lord Kinnaird and the earl of Hopeton; but the rhetoric of lord Thurlow led the house to reject it by twenty-three to twelve. Debts of superior importance about this time occupied the attention of the lower house. On the 20th April Mr. alderman Newnham had announced a motion he intended to make, on the 4th of May, for an address to the king, respecting the prince of Wales's situation; who, nine months before, had reduced his household, and entered upon a plan of œconomy for the liquidation of his debts. This occasioned several delicate and interesting conversations in the house, but, on the day appointed, the intended motion was not made, on account of an interview between the prince and Mr. Dundas; in consequence of which his majesty sent a message to the house on the 18th, informing them, that he had ordered £10,000 a year to be paid out of the civil list, in addition to the prince's former allowance. On the Wednesday following the house voted an address to the king, requesting him to order £160,000 to be paid out of the civil list, in full, for the prince's debts, and £20,000 more to complete the works at Carlton house.

On the 15th May Mr. Charles Grey moved an enquiry into certain abuses in the post office, and, a committee of enquiry being appointed, their report confirmed Mr. Grey's statement of abuses: but, after a pretty warm debate on the 28th, the business was got rid of, by a motion of adjournment to that day three months. The only other important business before the house this session was, the impeachment of W. Hastings, Esq. which commenced on the 7th February, when Mr Sheridan opened the third charge, respecting his treatment of the begums of Oude, in a speech of five hours and a half long. Conviction followed upon his arguments, and from that moment the whole house, except such members as were connected with the governor by friendship or gratitude, persevered in supporting the impeachment. The orator insisted that, 'in plundering these aged princesses, Mr. Hastings had no pretence, no excuse, nothing but his own corrupt will, to plead for his conduct.' He expatiated on 'his still more atrocious conduct in instigating a son against his mother, and sacrificing female dignity and distress, to parricide and plunder.'—The treaty of Chunar might challenge all the treaties that ever existed, for containing in the smallest compass the most extensive treachery. Mr. Hastings did not consent to it till he had received a bribe of £100,000 from the nabob.' Of Mr. Hastings's government he drew the following picture: 'Alike in the military and political line, we might see auctioneering ambassadors and trading generals: We saw a revolution brought about by an affidavit; an army employed in executing an arrest: a town besieged on a note of hand; and a prince dethroned for the balance of an account. Thus a government was exhibited, uniting the mock majesty of a bloody sceptre, with the little traffic of a merchant's counting house; wielding a truncheon with one hand, and picking a pocket with the other.' Mr. Pitt also expatiated on many aggravating circumstances in Mr. Hastings's conduct. The charge was carried by 175 against sixty-eight. On the 2d March Mr. Pelham opened the charge as to the nabob of Furruckabad; which, after some debate, was carried by 112 to fifty. On the 15th the charge on contracts, &c., was opened by Sir James Erskine, which was voted by ninety-six to thirty-seven. On the 2d April Mr. Sheridan again displayed his rhetorical powers, by opening the charge on presents:—'In reviewing the governor's conduct,' he said, 'he had found it to spring from a wild, irregular, and eccentric mind. He had been every thing by fits and starts; now proud and lofty, now mean and insidious; now generous, now griping; now artful, now open; now temporising, now decided; in pride, in passion, in every thing changeable, except in corruption. In corruption alone he had proved uniform, systematic and methodical. His revenge was a tempest, a tornado, blackening in gusts of pride the horizon of his dominion, and occasionally carrying all before it. But his corruption was a regular trade wind, which always blew from the same point, and on which the circulation of the wealth of India depended.' Major Scott and Mr. Burges vindicated Mr. Hastings; but the charge was sustained by 165 to fifty-four. On the 19th April the charge as to the revenues was opened by Mr. Francis, and sustained by seventy-one votes against fifty-five. The report of the charges was brought up by Mr. Burke, and supported by Mr. Pitt, Mr. Martin, and Sir P. J. Clerke, but opposed by lords Hood and Mulgrave, Mr. N. Smith, Mr. Wilkes, Major Scott, and Mr. Sumner. Mr. N. Smith spoke at great length in Mr. Hastings's favor; but the report was approved by 175 against eighty-nine; and the next day Mr. Burke was ordered, 'in the name of the house, and of all the commons of Great Britain, to go to the bar of the house of lords, and impeach Mr. Hastings of high crimes and misdemeanors,' &c., which was instantly done; and on the 14th May the articles were sent to the house of lords, and an impeachment moved on the sixteenth article, by Mr. Burke. The impeachment was conducted by a number of its most distinguished members, and enforced with all their eloquence. But Mr. Hastings was supposed to have performed those acts, for which he was impeached, upon the most urgent necessity, and for the safety of the British empire in India. The East India Company, with all its most distinguished servants, exerted their influence in his favor; ministry wavered between his friends and his enemies, till the energy of the latter languished by the lengthening out of the trial. He was acquitted on the 23d April, 1795, and the East India Company not only defrayed the expenses of his trial, but settled upon him an annuity of £5000 a year.

During the year 1787 the good understanding betwixt Great Britain and France, which had resulted from the commercial treaty, was interrupted on account of the affairs of Holland. There the united aristocratical and democratical parties, supported by the French court, were become highly refractory and turbulent, and had treated

the consort of his serene highness the stadtholder, sister to the king of Prussia, with the greatest indignity. His majesty had thought it necessary to explain his intention of counteracting all forcible interference on the part of France in the internal affairs of Holland, and gave orders for an augmentation of the forces both by sea and land. It had also been thought proper to conclude a subsidiary treaty with the landgrave of Hesse Cassel. Meanwhile, the rapid success of the Prussian troops under the conduct of the duke of Brunswick at once obtained the reparation demanded, and an explanation took place between the courts of London and Versailles, by which it was mutually agreed to disarm, and to place their naval establishments on the same footing as in the beginning of this year. During the alarm respecting the affairs of Holland, Mr. Pitt had proposed to the East India directors to send out four regiments of the king's troops at the expense of the company, which they had agreed to; but, on the alarm subsiding, they refused, after the troops were ready to embark. Mr. Pitt, therefore, on the 25th of February, moved a declaratory bill, 'to remove doubts respecting the power of the commissioners on India affairs.' On the second reading, Mr. Erskine reprobated its tendency, and drew a striking contrast between the India bills of Mr. Fox and Mr. Pitt. 'The latter,' he said, 'had stolen every thing that the former demanded; and, while it presented the company with the trappings of sovereignty, reduced them to the condition of slaves.' The bill, however, after repeated violent debates, passed both houses. A protest was entered against it by fifteen peers, among whom was lord Hay, earl of Kinnoul.—While the prosecution of Mr. Hastings was going on before the house of lords, an impeachment was moved in the house of commons by Sir Gilbert Elliot, against Sir Elijah Impey. Of the six charges exhibited against him, the only one discussed before the house was, that for the murder of the rajah Nundcomar, a chief of the Bramins. On the 28th of April Sir Gilbert entered fully on the charge; and showed, that forgery, the pretended crime for which Nundcomar was executed, was not capital in India; that the English law had never been promulgated among the Hindoos; that it did not even extend across the Tweed; and therefore, it was as absurd and unjust to apply it to a Hindoo, as it would be to try the Great Mogul for bigamy. Mr. Fox said, 'It was not for forgery that Nundcomar was hanged. It was because he made an accusation against Mr. Hastings;'—'If,' said he, 'I were upon oath as a juryman, I would pronounce Sir Elijah guilty of a deliberate murder.' Messrs. Pitt, M'Donald, Arden, and Sir R. Sutton, defended Impey; and Messrs. Burke, Francis, and Sir J. Johnstone supported the impeachment, which, however, was negatived by seventy-three to fifty-five. The second charge, being now before the privy council, was deemed improper to be entered on; a circumstance, which Mr. Burke considered as a collusion between Sir Elijah and the company. The prosecution was therefore postponed for three months, and from the enquiry no impeachment resulted. A great number of petitions having been presented against the slave trade, in the beginning of the session, Mr. Wilberforce gave notice of his intention to bring in a bill on the subject; but being prevented by indisposition, Mr. Pitt, on the 9th of May, moved a resolution, 'That they would early in the next session take into consideration the state of the slave trade.' Mr. Fox said, that 'the slave trade ought not to be regulated, but destroyed, as notoriously hostile to justice and humanity.' Mr. Pitt's motion was then agreed to, nem. con. The session was closed on the 11th of July.

Towards the end of the year a circumstance occurred which alarmed the whole nation. His majesty's health had been precarious for some months, and in November he was afflicted with a severe indisposition, which prevented him from meeting parliament. Symptoms of alienation of mind had appeared; and, after the examination of the royal physicians, an important question was started in the house of commons concerning the right of supplying the want of royal authority during the incapacity of his majesty. After very considerable debates, resolutions were carried in the commons for appointing the prince of Wales regent, with power to execute and administer the royal authority. He was, however, prevented from conferring peerages but on persons of the royal issue, and those of full age; and from granting offices or pensions, or salaries for life, or in reversion. The real, or personal property of his majesty was secured, and was not to be considered as appertaining to, or under the control of, the prince regent. The care and custody of the king's person was committed to the queen, who had power to remove and appoint, from time to time, all persons belonging to the different departments of his majesty's household, during the continuance of his indisposition, and no longer; and, for the better enabling her to perform this duty, a council was appointed to advise with her majesty on all matters relative to this trust, who were also empowered to examine upon oath, at such times as they should think fit, the physicians who had attended, respecting the state of his majesty's health. These resolutions being agreed to, after much debate, a committee was appointed to communicate them to her majesty, and his royal highness the prince of Wales. The prince replied to the committee in terms that did honor to his humanity, liberality, and patriotism; and the queen expressed her satisfaction and pleasure at the measures they had adopted in the present situation of affairs. The bill passed the house of commons on the 12th of February, and was presented to the house of lords on the following day. Here it was discussed on the 17th and 18th, and a few amendments were introduced into it; but before the lords could communicate their concurrence to the commons, a protest by upwards of fifty peers was entered on their journals. Happily, however, these proceedings terminated at this juncture. On the 12th of February the king had been declared by his physicians to be in a state of progressive amendment; and on the 17th convalescent; an adjournment of the house of lords was therefore

proposed on the 19th. On the 25th he was pronounced free from complaint; and on the 10th of March the lord chancellor addressed both houses of parliament in the name of his majesty, when the usual business commenced. On this occasion a general joy was manifested by all ranks of people, and illuminations and other marks of public rejoicings were made over all the kingdom. By his majesty's proclamation the 23d of April was observed as a day of public thanksgiving to Almighty God, for the removal of his late indisposition. The report of the privy council on the slave trade was laid on the table of the house of commons on the 25th of April, and on the 12th of May Mr. Wilberforce opened the discussion in a very forcible speech; but, after a great display of argument on both sides, the subject was deferred till next session. Here it may be observed, that the subject of the slave trade was agitated in several succeeding sessions, and its abolition warmly pressed; but Mr. Wilberforce's motions were rejected, and the question in a great measure dropped.

In the month of May, 1790, the Spaniards having captured two vessels belonging to Britain, in NOOTKA SOUND (see that article), a rupture seemed unavoidable; but, after vigorous preparations were made on both sides, all differences were settled. Thus was Great Britain happily rescued from the horrors of war in this quarter of the globe, while her Indian possessions, through accident or ambition, were involved in blood. Of all the native princes of India, Tippoo Saib was the most formidable to the British government, and the most hostile to its authority. The dispute which finally involved the English with him, arose betwixt the Dutch and Tippoo. The former were possessed of two forts, situated between Mysore and Cochin; to these the latter laid claim, in right of his father. The Dutch, unable to defend themselves, entered into a negociation with the rajah of Travancore, for the purchase of them, considering that by placing these forts in the hands of the rajah, who was the ally of Great Britain, they erected a powerful barrier against the encroachments of their ambitious neighbour. The bargain was concluded, July, 1789. On the 1st of March, 1790, the rajah's troops made an attack upon Tippoo, who had continued quiet within his lines from the 29th of December. An engagement took place, and, war being thus commenced, the British government conceived themselves bound to take an active part. For its result, see HINDOSTAN. Among the subjects which came before parliament, during this session, a repeal of the test act was again proposed. The motion was brought forward by Mr. Fox, and the subject, though ultimately rejected, was warmly debated; in the course of which, as well as on a previous question (the vote of supply for the army), Mr. Fox having made some references to the French republicans, as exemplary, Mr. Burke, who considered the French revolution in a very different light, opposed him with great keenness; and this afterwards ended in a total disunion of these two distinguished members of opposition. The parliament was dissolved on the 11th of June.

The new parliament assembled on the 25th of November, 1790, and the following day his majesty opened the session by a speech from the throne. Among several subjects of no great historical interest, which occupied the present session, a bill for the relief of protesting Catholics was passed; and the trial of Mr. Hastings gave rise to a question of considerable constitutional importance; whether impeachments by the commons abate by a dissolution of parliament? This was determined in the negative. In the end of March, 1791, an armament was voted, on account of the taking of Oczakow by the Russians; and, a bill having been brought in for regulating the government of Quebec, a debate ensued on the 6th of May, when Mr. Burke, after making some sarcastic references to the principles of the French revolution, and the abettors of them, declared that his friendship with Mr. Fox was dissolved by that cursed event.

The session was concluded on the 10th of June; soon after which a series of shameful and violent outrages took place in the town of BIRMINGHAM. See that article. The transactions of the session of 1792 were even less important than those immediately preceding. In the autumn of 1791 a marriage had been celebrated between the duke of York, his majesty's second son, and a daughter of the king of Prussia, which gave general satisfaction. On the 17th of February Mr. Pitt presented to parliament a copy of the treaty entered into between the British and Prussian monarchs. The dowry of the princess amounted to £12,000, which was viewed in an inconsiderable light in the wealthy nation of Britain, and parliament readily made a provision of £37,000 per annum for the parties. At this time, also, a statement of the public revenue was brought forward by Mr. Pitt, from which it appeared that about £400,000 might be applied towards the extinction of taxes, or the discharge of the national debt. An enquiry into the grievances complained of by the royal boroughs of Scotland was moved by Mr. Sheridan on the 18th of April, but refused by a considerable majority. In the course of this month a society was instituted in London, for the purpose of obtaining a reform in the representation of the people, which assumed the title of The Friends of the People. At the head of this association were Messrs. Grey, Baker, Whitbread, Sheridan, Lambton, and Erskine; and it was quickly joined by several respectable characters in the commercial and literary world. According to a resolution of the society, Mr. Grey, on the 30th of April, mentioned his intention to the house, of moving next session for a reform in the representation of the people. A tumultuous debate ensued, and the subject was dropped.

9. *From the war of* 1793 *to the peace of Amiens.*—The reader will have anticipated our entering upon a most eventful period of the British history; a period in which our most valuable institutions were threatened with unprecedented dangers. It could not but be obvious, upon the slightest observation, that the French revolution must produce consequences extremely important to Europe; and particularly to England, from the connexion which subsisted between the two

countries. We have already seen two very eminent British statesmen, who had been generally of one mind in political matters, totally divided in their views of this event. By one of these the celebrated Reflections on the French Revolution had been published in 1790: a work in which the illustrious author, with equal wisdom and eloquence, showed its true spirit, and the direct tendency of those principles which were professed by its authors. But we cannot pretend to give any idea of the ferment and commotion that the French revolution at that time occasioned throughout England. The proselytes to its principles spoke and acted as if a sudden blaze of light had illuminated the darkened world; as if mankind had awakened from a dream, and just opened their eyes, hitherto obscured by prejudice and superstition. Congratulatory addresses were sent from different societies to the national convention, extolling their new constitution in the highest terms; the press teemed with publications of the most seditious tendency; the wholesome principles of our ancestors were derided as the prejudices of narrow minds; and nothing but the vain sounds of 'liberty, equality, and the rights of man,' could be heard. These last insidious words were chosen as the title of one of the many replies which were made to Mr. Burke's Reflections; it was drawn up by Thomas Paine, a man who had formerly been caressed in North America, as the author of a pamphlet entitled Common Sense. This book, now published, contributed very much to poison the minds of the ignorant and profligate: it spread the infection of French principles among the lower classes; and the astonishing rapidity with which it circulated, together with the successes of the French in the Netherlands, inspired the favorers of French anarchy with uncommon boldness. Parliament was assembled on the 13th December, 1792, when his majesty, in a speech from the throne, intimated, that he had judged it necessary to embody a part of the militia, and to assemble his parliament earlier than the time specified. The first measure resorted to, in this difficult crisis, was the alien bill. In consequence of the disorders which at that time prevailed in France, under its then tyrannical rulers, great numbers of the French nobility and clergy had been obliged to emigrate, and to seek for safety in poverty and in exile. Another description of men had also emigrated from France for the worst of purposes. It was to thwart the designs of these men, that a bill establishing regulations respecting aliens arriving in Great Britain was presented to parliament. Mr. Burke gave this bill his most cordial support, as being calculated to keep out of England those murderous atheists, who would pull down the state and church, religion and God, morality and happiness. This bill was followed by another, brought in by the attorney-general, to prevent the circulation of assignats, bonds, promissory notes, &c., issued under the authority of France: another bill was passed, about the same period, for restraining the exportation of naval stores, ammunition, &c., and an order of council was issued for preventing the exportation of corn to France.

The French having now filled up the measure of their crimes, by embruing their hands in the blood of their sovereign; having, by repeated decrees, held out encouragement and protection to traitors in every country, and attempted to kindle the flames of rebellion throughout the world; and having in their last outrage, the opening of the Scheldt, manifested their contempt of all the existing treaties of Europe, Great Britain could no longer remain an inactive spectator of their proceedings. On the 28th of January, 1793, a message was delivered to the house of commons, informing them that his majesty thinks it indispensably necessary to make a further augmentation of his forces by sea, for opposing views of aggrandisement and ambition on the part of France. The question in favor of the address was carried both in the house of lords and commons without a division; though the marquis of Lansdowne and Mr. Fox made several observations against the objects of the war. The French, however, anticipated our intentions, whatever they might have been, by a decree of the convention, formally declaring war against his Britannic majesty and the Stadtholder; and, while Mr. Pitt remarked the causes of his majesty's message, he read an extract from a letter, addressed by one of the executive council in France, to all the friends of liberty in the French sea-ports:—'The king of England and his parliament mean to make war against us. Will the English republicans suffer it? Already these free men show their discontent, and the repugnance which they have to bear arms against their brothers the French. Well, we will fly to their succor; we will make a descent on the island; we will lodge there 50,000 caps of liberty; we will plant there the sacred tree, and we will stretch out our arms to our republican brethren: the tyranny of their government will soon be destroyed.'

About this period, from various causes attendant on the situation of the continent and the declaration of war with France, a general paralysis seemed to seize the country, and the number of bankruptcies exceeded all that had ever happened in the most calamitous times. Those who were possessed of property, appeared, at last, as much at a loss where to deposit it as those who experienced pecuniary distress where to look for relief. The interference of government was solicited by several of the principal traders and merchants, to apply a remedy to this state of things; in consequence of which Mr. Pitt moved that £5,000,000 should be issued by exchequer bills, under certain restrictions, for the assistance of such persons as can give proper security to the commissioners, for the sums that may be advanced. The bill, authorising this, passed both houses without a division; but one-half of the exchequer bills were never applied for. During this session the house of commons, on the recommendation of Sir John Sinclair, voted £3000 per annum for the establishment of a board of agriculture. A bill also passed without opposition, to remove certain incapacities and restrictions from Catholics in Scotland; and the inhabitants of the north of Scotland were successful in obtaining, through Mr. Dundas, a repeal of

the duty on coals carried coast-ways. The charter of the East India Company being now within a year of expiring, they petitioned for a renewal of it, which was granted, under certain regulations, for twenty years. Barracks were this year erected in the neighbourhood of all the principal towns through Britain, that the army might, as much as possible, be kept free from the contagion of popular opinion.

It would exceed our limits to enter into the prosecutions and trials which took place in consequence of the boundless liberty taken by many in propagating sedition, and subverting the government. The session of 1794 (met January 21st) was opened by his majesty with the usual formalities; and the address voted by a majority of 118. Various important questions were agitated in this parliament. No fewer than three motions were made by different members of opposition, for altering the criminal laws of Scotland, and the different treaties that had been entered into with the court of Petersburgh, the landgrave of Hesse Cassel, the kings of Sardinia, Spain, Naples, Prussia, Austria, and Portugal, were all canvassed by opposition, who reprobated the manner of conducting the war.

England, at the commencement of her long contest with France, took into her pay a large body of German troops; and the duke of York joined the allies, who confided to him the care of the army which in the summer of 1793 besieged Valenciennes. The trenches were opened on the 14th of June, 1793. The inhabitants wished to surrender; but the violence of the bombardment prevented their assembling. Much of the labor of the siege consisted of mines and countermines. Some of these having been successfully sprung by the allies, the town was surrendered on the 27th of July by capitulation to the duke of York, who took possession of it in the name of the emperor. The siege of Mentz was going on. It suffered much from famine. At last, after an unsuccessful attempt by the French for its relief, it surrendered on the 22nd of July.

At the termination of the siege of Valenciennes it is said that the allied powers were at a loss how to proceed next. Among various plans presented, that of the British ministry was adopted, to divide the grand army, and to attack West Flanders, beginning with the siege of Dunkirk. This determination proved ruinous. The French vanquished that army when divided, which they could not encounter when united. On the 24th of August the duke of York attacked and drove the French outposts into the town, after an action in which the Austrian general Dalton was killed. But a strong republican force menaced the covering army of the allies, under general Freytag. He was attacked and totally routed. The siege was raised. The British lost their cannon and baggage, with several thousand men; and the convention, believing that Houchard, their general, could have cut off the duke of York's retreat, tried and executed him for this neglect. Prince Cobourg and general Clairfait besieged Cambray and Bouchain without success. Quesnoy was, however, taken by general Clairfait on the 11th of September, which terminated for that campaign the success of the allies in the Netherlands. A part of the French army of the north took a strong position near Maubeuge, where they were blockaded by prince Cobourg; but, upon the 15th and 16th of October, he was attacked by the French troops under Jourdan, who had now recovered their vigor. They brought into the field a formidable train of artillery, with many twenty-four pounders. Commissioners from the convention harangued the soldiers, threatened the fearful, and applauded the brave. Crowds of women, throwing off their natural timidity, went through the ranks, distributing spirituous liquors, and carrying off the wounded. The attacks were repeated and terrible on both sides; but the Austrians were defeated, and Cobourg retired in the night. The French now menaced maritime Flanders. They took Furnes, and besieged Nieuport. A detachment of British troops were hastily sent to Ostend, and stopped the farther progress of the French. The leading people of Toulon now entered into a negociation, and submitted to lord Hood, under condition that he should preserve the town and shipping for Louis XVII. and assist in restoring the constitution of 1789. The siege of Toulon was commenced by general Cartaux in September. Neapolitan, Spanish, and English troops, were brought by sea to assist in its defence. In November, Cartaux was removed to the army in Italy, and Dugommier succeeded him. General O'Hara arrived with reinforcements from Gibraltar, and took upon him the command of the town under a British commission. On the 30th of November the garrison made a powerful sally to destroy some batteries erecting upon the heights. The allies succeeded in their object; but, elated by the facility of their conquest, rushed forward in pursuit of the flying enemy, and were met by a strong French force that was drawn out to protect the fugitives. O'Hara now came from the city to bring off his troops; but was wounded and taken prisoner. The total loss of the allies in this affair was estimated at nearly 1000 men. The French had now mustered in full force around Toulon, and prepared for the attack. It was begun on the 19th of December, and was chiefly directed against Fort Mulgrave, defended by the British. This fort was protected by an entrenched camp, thirteen pieces of cannon, thirty-six and twenty-four pounders, &c., five mortars, and 3000 troops. Such was the ardor of assault, that it was carried in an hour, and the whole garrison destroyed or taken. The allies, finding it impossible to defend the place, in the course of the day embarked their troops, after having set on fire the arsenal and ships. A scene of confusion ensued, unparalleled in the history of modern wars. Crowds of people of every rank, age, and sex, hurried on board the ships, to avoid the vengeance of their enraged countrymen. Some of the inhabitants began to fire upon their late allies; others in despair plunged into the sea, making a vain effort to reach the ships: thirty-one ships of the line were found by the British at Toulon; thirteen were left behind; ten were burnt; four had been previously sent to the French ports of

Brest and Rochefort, with 5000 republicans who could not be trusted; and Great Britain obtained by this expedition three ships of the line and five frigates.

At this siege first appeared in command, a lieutenant of artillery, Napoleon Buonaparte, destined to disturb the whole civilised world in his future direction of the resources of France.

On the 1st February, 1794, the chancellor of the exchequer read to the house of commons the decree of an extraordinary commission instituted in France, in consequence of a resolution of the joint committees of finances, of public and general safety, and subsistence, directing the use of every possible expedient to ascertain the property of French subjects in foreign funds; in order that it might be delivered up to the state, and become public property; and that, when the transfer was made, it should be paid for in assignats estimated at par. The motion, on this occasion, was brought forward by the solicitor general, and was, in substance, for leave to bring in a bill to prevent the application of debts in the hands of any of his majesty's subjects, to or for the disposal of persons resident in France, under the power of those who now exercise the government of France. The bill passed without opposition. In consequence of the French leaders menacing the country with invasion, an act was passed for the embodying and training of volunteers, by which associations of both infantry and cavalry were voluntarily formed throughout the country. Though the ferment about the political principles of the French had now considerably subsided, there were still many secret espousers and propagators of these principles in the country. On the 12th of May the ministry issued warrants for apprehending Mr. Horne Tooke, Mr. Hardy, and Mr. Thelwall; with several other persons, on a charge of high treason. On the same day Mr. Dundas brought down a message from the king, recommending to the house to consider the books and papers of the London Corresponding Society, which had been seized by his majesty's order, and to pursue such measures as were necessary to prevent their pernicious tendency. The papers were referred to a committee of secrecy, who brought up their report on the 16th of May; when Mr. Pitt, after an eloquent speech, moved for leave to bring in a bill, empowering his majesty to secure and detain all persons suspected of designs against his crown and government. A strenuous opposition was made to the bill, but it passed by a great majority. The trials for high treason commenced soon after, and that of Thomas Hardy, which continued eight days, terminated in his acquittal; Mr. Horne Tooke obtained also a verdict in his favor, after six days' investigation; five days were occupied upon the trial of Mr. Thelwall, but the issue was alike favorable to him; and the others were discharged. Some differences happening with America occasioned several motions in the house of commons; but matters were afterwards happily adjusted; and the session terminated on the 11th of July.

Immediately on the rising of parliament several changes took place in administration. The duke of Portland was appointed one of his majesty's principal secretaries of state, and Mr. Windham secretary at war. Earl Fitzwilliam was nominated president of the council, but was soon after sent to Ireland as lord-lieutenant.

In the Netherlands the emperor took the field at the head of the allied armies. West Flanders was to be protected by a strong body of men; the main army was to penetrate to Landrecy, and to cut off the French from the interior by covering the country from Maubeuge to the sea. The plan was bold; but, when attempting to put it in execution, the allies must have been ill-informed of the immense force which the French were collecting. The town of Lisle alone, which is capable of containing a numerous army within its walls, should have seemed an insurmountable objection to the plan. On the 16th of April the Austrian, British, and Dutch armies assembled on the heights above Cateau, and were reviewed by the emperor. On the 17th they advanced in eight columns against the French, drove in their whole posts, and penetrated beyond Landrecy. The allied army now amounted to 187,000 men, who were disposed in the following manner:—15,000 Dutch and 15,000 Austrians, under the prince of Orange and general Latour, formed the siege of Landrecy; 15,000 British and 15,000 Austrians, commanded by the duke of York and general Otto, encamped towards Cambray. The emperor and the prince of Saxe-Cobourg, at the head of 60,000 Austrians, were advanced as far as Guise; 12,000 Hessians and Austrians under general Wurmser were stationed near Douay and Bouchain; count Kaunitz with 15,000 Austrians defended the Sambre and the quarter near Maubeuge; and, general Clairfait, with 40,000 Austrians and Hanoverians, protected Flanders from Tournay to the sea; 60,000 Prussians, for whom a subsidy had been paid by Great Britain, were expected in addition to these, but they never arrived. The French now commenced their operations.

On the morning of the 26th of April they attacked the duke of York near Cateau in great force. After a severe conflict they were repulsed, and general Chapuy was taken prisoner. At the same time they attacked the troops under his imperial majesty, but were there also repulsed in a similar manner; losing in all fifty-seven cannon. On the same day, however, general Pichegru advanced from Lisle, attacked and defeated Clairfait, took thirty-two pieces of cannon; and in the course of a few days made himself master of Warwick, Menin, and Courtray. On the 29th of April the garrison of Landrecy surrendered to the allies. When this event was known in the Convention it excited a considerable degree of alarm. It was, however, the last effectual piece of success enjoyed by the allies during this disastrous campaign. General Clairfait was again completely defeated by Pichegru in a general engagement; and it was found necessary to send the duke of York to his assistance. On the 10th the duke of York was attacked near Tournay by a body of the enemy, whom he repulsed; but he was unable to join Clairfait, upon whose destruction the French were chiefly bent: for, at the same time that the duke of York was occupied by the attack upon himself,

Pichegru fell upon Clairfait with such irresistible impetuosity, that he was compelled to retreat in confusion, and a part of his army appears to have fled to the neigbourhood of Bruges. While Pichegru was thus advancing successively in West Flanders, Jourdan advanced in East Flanders from Maubeuge, crossed the Sambre, and forced general Kaunitz to retreat. On the 18th, however, general Kaunitz succeeded in repulsing the enemy, and they recrossed the Sambre with considerable loss. The allies now found that no progress could be made in France, while Pichegru was advancing successfully, and occupying West Flanders in their rear. The emperor, therefore, withdrew the greater part of his army towards Tournay, and resolved to make a grand effort to cut off the communication between Courtray and Lisle, to prevent completely the retreat of Pichegru. On the night of the 16th the army moved forwards in five columns for this purpose: Clairfait was directed to cross the Lys, to effect a general junction, and complete the plan; but, in the course of next day, the division under the duke of York was overpowered by numbers, and defeated. The progress of the rest was stopped, and Clairfait completely defeated. The duke of York escaped being made prisoner only by the swiftness of his horse.

The plan of the allies being thus frustrated, their army withdrew to the neighbourhood of Tournay. Pichegru attempted to retaliate. On the 22nd of May he brought down at day-break his whole force against the allies. The attack was commenced by a heavy fire of artillery, and all the advanced posts were forced. The engagement soon became general; the whole day was spent in a succession of obstinate battles. The French and the allied soldiers fought with equal courage and equal discipline. At nine o'clock P. M. the French at last withdrew from the attack. In this engagement the French were unsuccessful in their immediate object; but the weight of their fire, their steady discipline, and their violent obstinacy of attack, raised their military character high in the estimation even of their enemies. Their numbers were immense; they implicitly obeyed their generals. A combination of efforts was thus produced, whose operation was not retarded by divided counsels. On the other side, the numbers of the allies were daily declining; their leaders were independent princes, whose sentiments and interests were often hostile to each other, and their exertions were consequently disunited. On the 24th the French again crossed the Sambre, but were driven back with much loss. On the 27th they attempted to besiege Charleroi; but the prince of Orange, on the 3rd of June, compelled them to raise the siege. On the 12th a similar attempt was made, and they were again repulsed. In West Flanders, however, Pichegru commenced the siege of Ypres. It was garrisoned by 7000 men; reinforcements were therefore daily sent from the grand army to Clairfait to relieve it. The bloody contests in which the unfortunate general was daily engaged with the French were uniformly unsuccessful, and were the means of wasting the armies of the allies. Ypres held out till the 17th of June, when it capitulated: and such was the discipline of the French army, at this time, that no notice could be obtained, for several days, of that event.

On this the duke of York retreated to Oudenarde; for Jourdan, after storming the Austrian camp of Betignies, advanced with such strength upon Charleroi in the east, that its immediate fall was feared. As this would have enabled the two French armies to encircle the whole of Flanders, the prince of Cobourg advanced to its relief. Charleroi surrendered at discretion on the 25th. The prince of Cobourg advanced on the 26th, to attack in their entrenchments the army that covered the siege near Fleurus; but, the covering army being by this time reinforced by the accession of the besieging army, the allies were repulsed. Jourdan than drew his men out of their entrenchments, and attacked the Austrians. He was three times repulsed, but was at last successful; the loss of the vanquished army was prodigious. The French said it amounted to 15,000 men. The allies now retreated in all quarters. Nieuport, Ostend, and Bruges, were taken, and Tournay, Mons, Oudenarde, and Brussels, opened their gates. At this last place the French armies of East and West Flanders united. Landrecy, Valenciennes, Condé, and Quesnoy, were left with garrisons. The allied troops, evacuating Namur, formed a line from Antwerp to Liege to protect the country behind. The French advanced in full force, and attacked general Clairfait, cut to pieces half his troops that remained, and broke the line. The allies retreated. The duke of York was joined by some troops under the earl of Moira; with these and the Dutch troops he retired to near Bergen op Zoom and Breda for the protection of Holland. The prince of Cobourg evacuated Liege, crossed the Maese, and placed a garrison in Maestricht. He soon, however, sent back a part of his troops to the neighbourhood of Tongres; for here, to the astonishment of all Europe, the French armies made a voluntary pause in their career of victory, and ceased to pursue their retiring foes. Sluys in Dutch Flanders was the only foreign post that they continued to attack, and it surrendered after a siege of twenty-one days. On the Rhine the war was equally successful on the part of the French.

During the course of this summer Corsica was subdued by Great Britain: and the whole of the French West India Islands, except a part of Guadaloupe, yielded to the British troops under Sir Charles Grey and Sir John Jervis. On the 1st of June, 1794, the British fleet, under earl Howe, gained a most splendid victory over the French fleet to the west of Ushant. The French committee of safety had purchased, in America, immense quantities of grain and other stores. These were embarked on board 160 sail of merchantmen, convoyed by six sail of the line. Lord Howe sailed to intercept this valuable convoy. The French fleet sailed to protect it. On the morning of the 28th of May the fleets came in sight of each other. Lord Howe had previously despatched six ships of the line, under admiral Montague, to intercept the French convoy, while he should engage and

detain the grand fleet. The French despatched eight sail to defeat this attempt. In the course of the 29th Lord Howe got to windward of the French fleet. His force was twenty-five, and theirs was twenty-six sail of the line. The following day he bore down upon them and broke their line. The engagement was one of the severest ever fought. The French admiral, in less than an hour after the close action commenced in the centre, crowded off with twelve of his ships. The British fleet was so much disabled, or separated, that several of the French dismantled ships got away under sails raised on the stump of their fore masts. Seven sail of the line, however, remained in possession of the British, and two were sunk. In the mean time admiral Montague fell in with the French convoy, but it was now guarded by fourteen sail of the line. As he could not encounter such a force he returned home, and it was safely conveyed into port. Thus, by one of those contradictions which often occur in human affairs, the British fleet was victorious, and yet the French were left masters of the sea, and obtained their great object, provisions. As this engagement, however, testified that the British seamen had not lost their ancient superiority on their own element, the nation regarded the victory as a pledge of its independence, and very general rejoicings took place in consequence of it.

Parliament assembled on the 30th December, and his majesty's speech held forth the necessity of persisting in the war; which, when the address was moved, occasioned very warm debates in both houses of parliament. But the debates were still more remarkable upon a motion brought forward by Mr Grey in the house of commons, January 26th, 1795, and by the duke of Bedford in the house of lords on the following day, that the existence of the present government of France ought not to be considered as precluding at this time a negociation for peace. Our limits will not permit us to enter upon these debates; but Mr. Grey's motion was negatived by a majority of 183; nor was the duke of Bedford more successful.

In the course of the preceding year a treaty of marriage had been negociated between his royal highness the prince of Wales, and the princess Caroline of Brunswick. The nuptials were celebrated on the 8th of April this year, and on the 27th a message from his majesty was delivered to both houses of parliament, relating to the debts of the prince of Wales: it stated the reliance of his majesty on their generosity for enabling him to settle an establishment upon the prince and his august bride, suited to their rank and dignity; that the benefit of any settlement now made could not effectually be secured to the prince till he was relieved from his present incumbrances to a large amount; but that his majesty did not propose to his parliament any other means of providing for this object, than the application of a part of the income which may be settled on the prince, and the appropriation for a certain time of the revenue of the duchy of Cornwall, &c. After considerable difference of opinion on the subject, the annual sum of £125,000 was voted by the house of commons as a suitable establishment for the heir apparent to the throne; but of this, £65,000, with the rents of the duchy of Cornwall, amounting to £13,000, were set apart for the liquidation of his debts, which, at this time, amounted to £630,000.

Parliament was prorogued on the 27th of June, but was again assembled much earlier than usual, chiefly on account of the unfavorable state of the domestic concerns of the country. At the close of the year 1794, the winter had become so very severe as to enable the French to make an easy conquest of Holland, by which they now held an immense length of sea coast opposite to Britain, while this summer had been so ungenial to Great Britain, that a dearth of provisions began to prevail. The London Corresponding Society, as if availing themselves of the discontent which this produced among the populace, had, previous to the meeting of parliament, held several meetings in the open fields, for the avowed purpose of petitioning the king in parliament for peace and parliamentary reform, which doubtless contributed to excite the riots that took place. The most daring insults were offered to his majesty as he passed along, at the usual hour, to open the session of parliament, by the crowd in St. James's park; and, in the streets adjoining Westminster Hall, stones and other missiles were thrown, several of which struck the state coach. As his majesty returned from the house the outrages were renewed, and, after he alighted, the coach was attacked, and almost demolished. His majesty in his speech, while noticing the situation of continental affairs, seemed to indulge a hope that terms of peace might soon be attainable, but, to accelerate this desirable end, it was necessary that we should prove our ability to prosecute the war. The usual address being moved, occasioned some debates on the propriety of the war, but an address to his majesty relative to the outrages committed against his person was proposed and agreed to; and on the 4th of November copies of his majesty's proclamation, relative to these outrages, were submitted to the house, and ordered to lie upon the table. On the 6th a bill was presented by lord Grenville, pursuant to the notice he had given on the former day, 'for the safety and preservation of his majesty's government against treasonable and seditious practices and attempts;' and, on the same day, the chancellor of the exchequer, after an eloquent speech, moved, that 'leave be given to bring in a bill for the more effectually preventing seditious meetings and assemblies.' These bills, after a violent opposition, passed both houses of parliament. During this year, 1795, Great Britain retained her usual superiority by sea. A British squadron, under admiral Elphinston, had taken possession of the Dutch settlement of the Cape of Good Hope, on the 16th of September, 1795. This settlement the Dutch wished much to recover; and they advanced money to enable the French to fit out a squadron to co-operate with them in an attack upon it. The French government took the money, but the squadron was never equipped. The Dutch themselves this year sent a squadron of seven ships of war,

under admiral Lucas, to reconquer the Cape; but being no match for the British squadron, and being caught between two fires, without the possibility of escaping, the Dutch fleet, without firing a gun, was delivered up to the British admiral.

In the month of March, 1796, an attempt was made towards a negociation for peace with France, but in vain. During this session supplies were voted to the amount of £37,588,000, and above £25,500,000 was borrowed. The guards and garrisons were reduced to 59,000 men, and the colonial forces increased to 77,000; sailors and marines were 110,000. But, after an active and successful campaign on the part of the French, several states thought proper to send ambassadors to Paris to open the negociation for peace. A treaty was concluded with Spain and several of the German princes. The attention of Europe was, however, most deeply engaged by the negociations opened by the English government. The commencement clearly foreboded what would be the event of these; the grossest calumnies, concerning the insincerity and even perfidy of the English court, were circulated under the apparent sanction of the directory. After a great deal of discussion, concerning the principle of restitution, the two governments at last agreed on that point, and lord Malmesbury delivered two memorials on the principal objects of arrangement. The directory, having read the memorials, sent an extract from the register of their deliberations, requiring lord Malmesbury's signature to the memorials, and also the ultimatum of his demands, in twenty-four hours. He complied with the forms required by the directory, but observed that the peremptory demand which they made of an ultimatum shut the door at once to all negociation; and represented, that if the conditions submitted to their consideration were not approved, or were not to be the subject of discussion, if they would propose their own conditions he would submit them to the consideration of his court. Upon this the negociation ended, for the directory, having read the memorials received on the 17th of December, ordered the ministry to write to lord Malmesbury on the 18th, that they could hear no propositions contrary to the constitution, and the laws and treaties by which the republic were engaged; and likewise enjoining him to leave Paris in twenty-four hours. Such was the event of this negociation on the part of the French; commenced with reluctance, conducted with insincerity, and concluded with insult.

The French, towards the close of 1796, attempted an invasion of Ireland; but the plan was ill concerted. The whole conduct of it was entrusted to general Hoche, and no second was prepared to occupy his place in case of any accident. The disaffected faction, with whom the French meant to co-operate, was not warned of their approach, and the fleet was sent towards a quarter of the country where the people were not prepared to receive them. When about to sail it was detained for some time by a mutiny, which arose in consequence of the enlistment of about 1200 galley slaves. The frigate in which general Hoche had embarked was separated from the fleet in a gale of wind; so that when the greater part of the fleet arrived at Bantry Bay, on the west coast of Ireland, nobody had instructions how to proceed. The troops and their officers wished to land, but the admiral, Bouvet, refused to allow them. Having remained several days upon the coast, he sailed for France, and arrived at Brest, with a part of the fleet on the 31st of December. General Hoche did not reach Bantry Bay till it was too late, and therefore could not land. The fleet suffered losses in its return.

At the opening of the session, in the end of 1796, his majesty took notice of the invasion which the enemy had projected against England. Mr. Pitt brought forward the business in the house of commons, and pointed out the means by which he proposed to raise 15,000 men, to be divided between the land and sea service; to raise a supplementary levy of 60,000 for the militia, and 20,000 cavalry, which, with a few alterations and amendments, were agreed to. But, in mentioning the supplies for the year, which amounted to £27,647,000, and explaining the different articles of expenditure, the minister alluded to an expense of a particular nature, which had been incurred during the interval of parliament. As it would have been a matter of very great delicacy to have brought forward a public discussion on the propriety of advancing a sum to a foreign court in the critical situation of the country, ministry had granted to the emperor, without a public discussion, the sum of £1,200,000. This transaction was canvassed soon after, and the opposition reprobated it with the utmost acrimony. While the senate appeared thus the scene of faction, a most daring mutiny broke out in the navy, the pride and glory of the nation. The seamen had addressed several letters to earl Howe, soliciting a redress of grievances, particularly as to provisions, in which it seems they had been imposed upon, both as to quantity and quality; but, as these letters were anonymous, his lordship paid no attention to them. This apparent neglect produced a general correspondence by letter through the whole fleet; and on the 14th of April, when the signal was made to prepare for sea, a general revolt ensued; and, instead of weighing anchor, the seamen of the admiral's ship gave three cheers, which were echoed by the other ships. Delegates were then appointed for each ship, to represent the whole fleet; and the cabin of the admiral's ship was fixed upon as the place of their deliberation. Petitions were drawn up and presented to the admirals upon the spot, stating their demand of an increase of wages, and of some regulations for their benefit with respect to the ratio of provisions. On the 18th a committee of the admiralty arrived at Portsmouth, who made several propositions to reduce the men to obedience; the lords of the admiralty next conferred with the delegates, who assured their lordships that no arrangement would be considered as final, until it should be sanctioned by king and parliament, and guaranteed by a proclamation for a general pardon. Matters remained in this situation till the 23d, when earl Howe returned to his ship, hoisted his flag, and, after a short address to his crew, informed

them that he had brought a redress of all their grievances, and his majesty's pardon for the offenders: after some deliberation these offers were accepted, and every man returned to his duty. All disputes seemed now to be settled, but it was quickly circulated among the sailors that government deluded them with vain hopes. The flame of mutiny was rekindled; and on the 7th of May, when lord Bridport made the signal to weigh anchor, every ship at St. Helens refused to obey. A meeting of the delegates was ordered on board the London; which vice-admiral Colpoys opposed, and gave orders to the marines to level their pieces at them; a skirmish ensued, in which five of the seamen were killed. The whole crew of the London now turned their guns towards the stern, and threatened to blow all aft into the water, unless their commanders surrendered; which they reluctantly did, and admiral Colpoys and captain Griffiths were confined for several hours. The seamen continued in this mutinous state till the 14th of May, when lord Howe at length arrived from the admiralty with plenary powers to enquire into and settle the matters in dispute; he was also the welcome bearer of an act of parliament, which had been passed on the 9th, granting an additional allowance as well as his majesty's proclamation of pardon for all who should immediately return to their duty. Matters being thus adjusted, the sailors appeared satisfied; the officers were generally reinstated in their commands, the flag of disaffection was struck, and the fleet prepared to put to sea to encounter the enemy. Such, however, is the propensity of the human mind, when gratified in one point, to entertain new desires, that the success of the seamen on this occasion encouraged another part of that heroic body to make farther claims. The sailors at the Nore insisted on a more punctual discharge of arrears, a more equal distribution of prize money, and a general abatement of the severity of discipline. They chose delegates from every ship, one of whom, a seaman named Richard Parker, being appointed President, assumed the command of the fleet. The flag of admiral Buckner was struck on the 23d of May, and the red flag, the symbol of mutiny, hoisted in its stead; while they transmitted a statement of their demands to the admiralty. At this alarming height of the mutiny, a deputation of the lords with earl Spencer at their head, proceeded to Sheerness; but finding the sailors rather rising in insolence and disobedience, than inclined to submission, they departed, after signifying that they need expect no concessions whatever, further than what had been already made by the legislature. The mutineers now proceeded to force a compliance with their demands, by blocking up the Thames, and refusing a free passage up and down the river to the London trade. Two merchant ships were robbed of provisions, and some ships of war, that refused to accede to the combination, were fired upon. Ships of neutral nations, however, colliers, and a few small craft, were allowed a passport, signed Richard Parker, president of the delegates. No hopes of accommodation appearing, every necessary measure was taken to compel the seamen to return to their duty. An act of parliament was passed for preventing all intercourse with the mutinous ships; and government ordered all the buoys to be removed from the river Thames and the neighbouring coast. Preparations were also made at Sheerness against an attack from the mutineers, who seemed to meditate the bombardment of the place; and, after the rejection of the last attempt at a reconciliation through the medium of lord Northesk, measures were taken by lord Keith and Sir C. Grey, to attack the fleet from the works with gun boats. Happily, however, the defection of some of the ships, with other strong symptons of disunion, rendered the application of force unnecessary; and on the 10th of June, several ships having pulled down the red flag, the rest followed their example within a few days, and went under the guns of the fort. Admiral Buckner's boat was then sent to the Sandwich, with a picket guard of soldiers, to arrest Parker, who was very peaceably surrendered to them with about thirty other delegates. They were soon after brought to trial; several were executed, but the greater part remained under sentence till the signal victory of admiral Duncan, in the month of October, when they were pardoned.

In the beginning of this year the public mind was considerably agitated also by another event, which at first threatened to overwhelm in ruin the pecuniary resources and commerce of the country: the Bank of England suspended its payments in specie. Though, doubtless, the large sums of money sent abroad as subsidies to foreign princes by government had diminished the quantity of gold and silver in Great Britain, one powerful cause of this event seems to have been the terror of invasion; this induced the farmers, and other persons at a distance from the metropolis, to withdraw their money from the hands of those bankers with whom it was deposited; and from the country bankers the demand for specie soon reached the capital. In this alarming state the ministry found themselves compelled to interfere, and an order of the privy council was issued on the 26th of February, prohibiting the directors from issuing any cash in payment till the sense of parliament could be taken of that subject. The business was immediately laid before parliament, when the most violent debates ensued; the opposition, as usual, imputed every evil to the incapacity and wickedness of the ministry, and insisted with great violence that the bank had failed, and that the nation was ruined. But, committees of both houses being appointed to examine the state of the bank's affairs, they reported them to be in a prosperous state, though they each recommended a continuance of the late prohibition. Measures were adopted for maintaining the means of circulation, and supporting and maintaining the public and commercial spirit of the kingdom; and the ferment and alarm which had been raised by this unexpected event was soon allayed. During this year the war on the part of Great Britain was almost exclusively confined to naval operations, in which the skill and activity of her seamen was eminently conspicuous, and invariably crowned with victory. Through

the influence of the French, Spain had been induced to declare war against Britain; and a Spanish fleet of twenty-seven sail of the line, while attempting to join a French armament, was attacked by Sir John Jervis with fifteen sail; the issue of which obtained for the English admiral the title of Earl St. Vincent, and the thanks of the British parliament. See JERVIS. We have, in our memoir of admiral DUNCAN, given an account of the heroism he displayed in the defeat of the Dutch fleet, and this defeat it was afterwards believed prevented the French from invading this country. But, while the power subordinate to France suffered these disasters by sea, the French armies were gaining fresh triumphs on the continent; and the consequences of these left Britain alone in the contest. Both the French and English nations were now, however, anxious for the restoration of peace; and a negociation was entered into at Lisle: but by this time a sanguinary party, with the director Barras at their head, prevailed in the French councils, so that they demanded of lord Malmesbury, the British ambassador, as a preliminary to negociation, the restitution of all his Britannic majesty's conquests. To this it was replied, that peace on such terms would not be thought of; and, after some farther fruitless discussion, his lordship was desired to return home. Having rejected our offers of peace, the enemy resumed the project of an invasion of Britain, and it was generally thought that they seriously intended to make the attempt. Vast preparations were made in all the different sea-ports of France; a great number of flat-bottomed boats and transports were fitted out; and a formidable force was assembled near the sea-coast, to which they gave the name of the Army of England. Idle stories were likewise propagated about rafts of an immense size, in which they were to float over to England, and to carry terror to her shores. In the mean time the British ministry adopted the most prudent and judicious precautions to repel attacks. A bill was passed for enabling his majesty to provide more effectually for the defence of the country, and to indemnify such persons as might sustain loss or injury, in consequence of the measures which it might be necessary to take for the general defence of the country, &c.; likewise to ascertain those who were willing, near their own homes, to cooperate with the existing force of the country, whether as soldiers, pioneers, drivers of waggons, or in any other situations; circular letters were addressed to the lord-lieutenants of the counties, informing them that any corps of respectable householders would be accepted: in short, every measure was taken which could ensure the public tranquillity, or defeat the attempts of our enemies. At no period of our history were there so much zeal and courage displayed by all ranks of the British nation. They united as one man in defence of their constitution. Before the spring the enemy finally abandoned the threat of invasion, and directed their fleet to sail for Egypt, accompanied by a great number of transports. This formidable armament was closely pursued by the British under admiral NELSON (see that article), and, though the French troops had effected a landing before he came up with it, he overtook their fleet in the bay of Aboukir, and obtained 1st August 1798, the memorable victory of the Nile.

In the mean time, while the British ministry watched with a jealous and vigilant eye the designs of the enemy abroad, their attention was not diverted from the treasonable attempts of their adherents at home: a conspiracy of a very dangerous nature was discovered; and Mr. O'Connor, a young man of family, leagued with several obscure persons, having given just grounds for suspecting his designs, the party was watched, and traced to Margate, from whence they proposed to embark for France. After several examinations they were finally committed to take their trial for high treason, which took place at Maidstone. Their defence consisted in a simple denial of the facts charged against them; but Mr. O'Connor brought forward, in his behalf, the most respectable members of the opposition, who gave him an excellent character. Only one of the prisoners, a Mr. O'Coigley, was found guilty, and was shortly after executed; but, by authority of a warrant from the duke of Portland, Mr. O'Connor was apprehended immediately after his acquittal, and sent under a guard to Dublin.

Matters there were still more alarming: an extensive and dangerous conspiracy had been formed for erecting Ireland into an independent republic. See IRELAND. About this time, also, the French fitted out an expedition for the invasion of Ireland. Their forces consisted of one ship of eighty guns, eight frigates, a schooner, and a brig. Being discovered by the squadron under Sir J. B. Warren, after an action of nearly four hours, the La Hoche with three other ships struck to the British. They were full of men and every thing necessary for the establishment of a formidable force in Ireland. Parliament assembled on the 20th of November 1798, when his majesty, in a speech from the throne, noticed particularly the late victory obtained by the fleet under admiral Nelson. Scarcely any single victory ever produced consequences of such importance. The grand seignior, who had paid little attention to the invasion of Egypt, now declared war, in the name of all Mussulmans, against the host of infidels which had invaded the land from whence the sacred territory of Mecca is supplied with bread. The powers on the continent of Europe were inspired with fresh vigor: and a coalition was formed between the emperors of Russia and Germany, and the king of Great Britain.

On the Rhine the French were repeatedly defeated and pursued by the Austrians; general Suwarrow drove them from all their conquests in Italy. In the mean time Great Britain prepared to invade Holland with an army of 40,000 men, consisting of British troops and Russian auxiliaries. The first division, under general Sir Ralph Abercromby, sailed in August, with a fleet commanded by admiral Lord Duncan. Bad weather prevented a landing from being attempted till the 27th. On the morning of that day the troops landed without opposition upon the shore of Helder Point in North Holland, at the entrance

to the Zuyder Zee. They had not been expected in this quarter, and the troops in the neighbourhood were consequently few. The British, however, had no sooner begun to move forward than they were attacked by a considerable body of infantry, cavalry, and artillery, who had been hastily assembled from the nearest towns. The Dutch troops maintained the contest with much obstinacy; but they were gradually fatigued by the steady opposition they encountered, and retired six miles. In the night they evacuated the fort of Helder, of which the British took possession on the morning of the 28th. A detachment from the British fleet, commanded by vice-admiral Mitchell, now entered the Zuyder Zee, by the strait of the Texel, to attack the Dutch fleet under admiral Story; who, instead of retiring for safety to any of the ports, or to the shallow water with which that sea abounds, surrendered the whole fleet, on the 30th of August, without firing a gun, under pretence that his seamen were mutinous and would not fight. Had the expedition terminated here it might have been regarded as extremely fortunate, and as establishing the power of the British navy without a rival. But it was resolved to follow up this first success by an effort on land to restore the authority of the Stadtholder, and the ancient government of the United Provinces. Many circumstances were hostile to this enterprise. The whole army had not been sent at once from Britain. As no more than the first division had arrived, the troops could only rest upon the ground they had gained till reinforcements should be sent. The terror arising from the first appearance of an invading army was thus allowed to pass away, the friends of the Stadtholder were discouraged, while leisure was afforded to the enemy to adopt effectual measures of defence. The place where the landing was effected was well chosen for an attack upon the Dutch fleet; but for an invasion, with a view to the restoration of the Stadtholder, it was the worst that could have been selected. North Holland, at the extremity of which it was made, is a narrow peninsula, every where intersected by canals and ditches, of about forty miles in length. Here the invaders might be detained, and even successfully resisted, by a force greatly inferior to their own. This also was the quarter of the country the most unfavorable to the cause of the Stadtholder. The rainy season too was approaching, which renders a winter campaign in Holland almost impossible.

Amidst the pressure of the difficulties which surrounded them, the French directory hesitated much about undertaking the defence of Holland; but the place, and the time of landing the invading army, soon determined them. General Brune was sent with troops to support the Dutch general Daendels. General Abercromby, in the mean time, remained upon the defensive at Schager Brug, waiting for reinforcements. His inactivity encouraged the enemy, on the 10th of September, to venture an attack upon his position. They advanced in three columns, two of Dutch, and one of French troops. They were repulsed, however, in all quarters, and retired to Alkmaer. On the 13th the duke of York arrived with additional troops, and assumed the chief command. The Russian auxiliaries having also arrived, offensive operations were immediately resolved upon. On the 19th the army advanced. General Abercromby commanded the left, which proceeded along the shore of the Zuyder Zee against Hoorne. The centre columns were commanded by generals Dundas and Pultney; and the right wing, consisting of Russians, was commanded by their own general, D'Herman. By some strange misunderstanding, the Russians advanced to the attack soon after 3 o'clock A. M., which was some hours previous to the movement of the rest of the army. They were successful in their first efforts, and obtained possession of the village of Bergen; but pressing eagerly forward, and being unsupported by the other columns, they were nearly surrounded. Their commander was taken prisoner; and, though the British came in time to protect their retreat, they lost at least 3000 men. This failure on the right obliged the British commander-in-chief to recal his troops from the whole advanced positions they had gained, though general Abercromby had actually taken Hoorne with its garrison, and although general Pultney's column had carried by assault the principal position of the Dutch army called Ourds Carspel. The severity of the weather prevented another attack till the 2nd of October, when, after an engagement that lasted from 6 A. M. till 6 P. M., the British army succeeded in driving the united Dutch and French troops from Alkmaer and the villages in its neighbourhood. The contest was chiefly conducted amongst the sand hills in the vicinity of the ocean; and the battle was maintained with such obstinacy, that the fatigue of the troops, with the difficult nature of the country, prevented the British from gaining any great advantage in the pursuit. The retreating army immediately occupied a new position between Baverwyck and Wyck-op-zee. The duke of York once more attacked them on the 6th; and after an obstinate and bloody engagement, which was maintained till night, he remained in possession of the field. But this was the last success of the invaders. Finding himself unable to make farther progress, in consequence of the increasing numbers of the enemy, the impracticable nature of the country, and the badness of the weather, which during the whole of 1799 was unusually severe, the duke of York retired to Schager Brug, and waited for orders from England to return. He was, in the mean time, closely pressed by the united Dutch and French forces, so that his embarkation must have been attended with much hazard. He therefore entered into a convention with the French and Dutch generals; by which it was agreed, that they should no farther molest him in his retreat; that, in return, he should not injure the country by breaking down any of the dykes which protect it against the sea; and that Great Britain should restore to France and Holland 8000 prisoners of war, taken previous to this campaign.

In the view of our domestic concerns every other consideration was at this time absorbed in the question of a legislative union with Ireland. The late rebellion, and the fear that through the machinations and aid of the French, Ireland

might be separated from the British empire, made this object, which should have been effected three centuries before, of the utmost moment at the present era. Some preliminary discussion was introduced in a debate in the English house of commons on the 23rd of January, 1799; and the subject was again laid before the house on the 31st of the same month, by Mr. Pitt, and approved of by a majority of 145; the measure was discussed in the house of lords, and met with a similar approbation. In the Irish house of commons, however, which was opened on the 22nd, with a speech from the lord-lieutenant, indirectly announcing the measure, the reception it met with was unworthy the dignity of a legislative assembly. Instead of that dispassionate consideration which such an important measure deserved, it was opposed with the utmost violence; and the enemies of the measure endeavoured, by every possible art, to kindle the passions and prejudices of the people of Ireland into a flame. The discussion did not close till noon the following day, when the address was carried by a majority of only one. Upon this, ministry desisted from the immediate pressure of the measure, which, however, was soon after effected. See IRELAND.

Meanwhile, the report of a committee of the British house of commons clearly developed the views and intentions of the Irish traitors. On the 19th of April the report was taken into consideration; and Mr. Pitt moved for a bill to renew and amend the bill passed in the thirty-eighth of George III., for securing and detaining persons accused of sedition, &c. The resolutions passed, and a bill was brought in by the lord mayor of London, for carrying the latter part of them into effect. Several other measures were adopted, which operated as a restraint upon liberty, but which were justified by the formidable appearance which treason had assumed. The finances of the year 1799 were introduced by a notice given to the house of commons on the 26th of November by the chancellor of the exchequer, that on that day fortnight he should make a statement of the whole ways and means of the year. The plan which he meant to follow was that of raising a considerable part of the supplies within the year, the principle of which had already received the sanction and approbation of the house. While the principle remained the same, the mode of raising the supply was rendered less exceptionable than in the year 1798. For this purpose the assessed taxes were repealed, and a general tax was imposed on all the branches of income. No income under £60 was subjected to any contribution, and the scale of modification was extended to £200, after which a tenth part of the contributor's income was exacted. The mode of obtaining this contribution differed from that pursued in the assessed taxes, as, instead of trebling the amount, the statement of income proceeded from the party himself, which it was in the power of commissioners appointed for the purpose, and sworn to secrecy, to return, if they thought that a false statement was given, or to demand a specification of income. A bill had been brought in during the last session for the redemption of the land-tax. Its object was, by absorbing a large quantity of stock, to raise its price, and in the end to transfer a large portion of national debt into a landed security. The annual amount of the land-tax was £20,000,000. It was proposed to sell or commute this annuity at twenty years' purchase, at three per cent. stock, which the government was to take in payment at fifty. The preference was given to the owner of land; and if within a certain period he should not be able to purchase, a further period was allowed.

We have already hinted at the successes of the combined powers on the continent; but in the end of this year a misunderstanding took place between the Austrians and Russians, in consequence of which the emperor Paul abandoned the coalition. About the same time Buonaparte, after being disappointed in his projects on Egypt, particularly by the valor of Sir Sidney Smith (see ACRE), and hearing of the reverse of fortune which the French armies had suffered in Europe, left his army in Egypt; returned to France; and, abolishing the directory, obtained the appointment of an executive commission of three consuls, of which he himself was the chief, or first consul. To render himself popular in this high station, and to cast the odium of continuing the war upon others, he addressed a letter to the king of Great Britain, on the subject of a general peace; but the British cabinet conceived that the new French government could as yet give no security for terms of peace. Lord Grenville accordingly replied to the chief consul's letter; informing the French minister, that his majesty, in entering into the contest, 'had no other view than that of maintaining, against all aggression, the rights and happiness of his subjects; that for these he had contended against an unprovoked attack; and that for the same objects he was still obliged to contend; that he looked only to the security of his own dominions and those of his allies, and to the general safety of Europe. Whenever he can judge that security can in any measure be obtained, as resulting either from the internal situation of that country, from whose internal situation the danger has arisen, or from such other circumstances of whatever nature as may produce the same end, his majesty will eagerly embrace the opportunity to concert with his allies the means of immediate and general pacification.'

This correspondence occasioned very considerable debates in the British parliament; but ministry had still a great majority, and preparations were made for prosecuting the war. Austria also continued the contest, but Buonaparte was now (1800) at the head of the French army, which quickly retrieved the losses of the preceding campaigns. Suffice it here to say, that after the decisive battle of Marengo, in the month of June, Austria was obliged to sue for peace; while the northern powers, in consequence of Buonaparte's victorious career, seemed eager to court his favor, by forming designs against this country. The emperor Paul, naturally fickle and hasty, formed a close alliance with him; and in conjunction with the Danes, Swedes, and Prussians, began to renew their former engage-

ments, for establishing a new code of maritime laws, inconsistent with the rights, and hostile to the interests of this country. Towards the end of this year a scarcity of provisions pressed heavily on all ranks of people in Britain. By a long and almost constant series of rainy weather the crop of 1799 was materially injured, and the harvest retarded. The crop of 1800 was nearly as deficient. The people who had now expected relief grew fretful by calamity; and being persuaded that the scarcity was not altogether occasioned by the failure of the crops, but by artful combinations, a general odium was raised against all who traded in grain or any of the necessaries of life: they were held up to popular obloquy as monopolists and forestallers; the sole authors of the miseries of the people; men for whose crimes it was impossible to devise an adequate punishment. Parliament was summoned, chiefly, it is probable, to take this subject into consideration; and by prohibiting the exportation of grain, and granting a bounty of importation, &c., the horrors of a famine were at least averted.

The great and important measure of a legislative union with Ireland having been fully settled in the course of the preceding year, the united parliament of Great Britain and Ireland, now called the imperial parliament, assembled on the 2nd of February, 1801; but another event now took place, which occasioned considerable agitation in the minds of the public: this was a schism in the cabinet. Mr. Pitt and his associates had considered it necessary, for completing and giving effect to the measures of the Irish union, that the benefit of full freedom should be extended to the Catholics; but, finding it impossible at present to attain this object, they did not think it consistent with their duty any longer to retain responsible situations in his majesty's councils. They therefore determined to give in their resignation as soon as the state of public business would allow. Their successors were Mr. Addington, lord Hawkesbury, lord Hobart, lord Eldon, earl St. Vincent, &c. The new arrangements were, however, retarded by the illness of his majesty, and thus several of the ministers remained in their situations till all apprehensions with regard to his recovery were removed.

It was now eight years since Britain had been compelled to take up arms against the invidious and hostile designs of France. During that short period she had been exposed to perils novel in their nature, and menacing in their appearance, partly arising from the open and determined hostility of external enemies, and partly from the insidious machinations of intestine foes. She was now about to be assaulted by a combination of the northern powers, who in contradiction to the whole system of maritime jurisprudence, as acknowledged and practised by the nations of Europe, questioned her right of searching neutral vessels, thereby aiming an indirect blow at the superiority of her naval power. They affirmed that a belligerent had no right to search vessels escorted by a ship of war, that being deemed a sufficient security that the convoy contained no contraband goods; they moreover declared, that it was their determined resolution, if Great Britain refused to agree to their alleged neutral rights, to assert them by force of arms. It was not to be expected that Britain would be awed by the menaces of this hostile combination, and relinquish a right sanctioned by the practice of all belligerent nations, and founded on the plainest and most unalterable principles of the law of nations. In Russia the subjects of Great Britain were robbed of their property, detained in tedious imprisonment, and subjected to the caprices of a cruel, vindictive, and unreasonable tyrant. Although a change had now taken place in the British cabinet, the new ministry, who had always given their most decided and strenuous support to the measures pursued by Mr. Pitt, professed to have the same views, and to act upon the same principles. They repeatedly affirmed that the dispute with the northern powers was so important to the prosperity and glory of Britain that it could neither be relinquished nor compromised; that, since the combined powers were determined to persist in their unwarrantable pretensions, it became necessary for Britain to assert her rights by force of arms. A formidable fleet was assembled at Yarmouth, which was entrusted to Sir Hyde Parker, and under him to lord Nelson, and rear-admiral Greaves. They sailed from Yarmouth on the 20th of March, and, forcing the passage of the sound, anchored before Copenhagen on the 30th of the same month. The Danes seemed to have made very formidable dispositions: they had assembled ships of the line, pontoons, galleys, fire-ships, and gun-boats; which were flanked and supported by extensive batteries, some of which mounted from fifty to seventy pieces of cannon. They were attacked by twelve sail of the line and four frigates, commanded by lord Nelson. The battle commenced at ten o'clock on the 2nd of April, and continued with great fury for four hours. The result was the capture or destruction of eighteen sail of Danish ships, including in that number seven sail of the line, together with 3000 men killed and wounded: the killed on the part of Britain were about 250, the wounded 700. This victory struck a terror into the confederates, and was immediately followed by an armistice for fourteen weeks. In the mean time, the emperor Paul had died suddenly on the 23rd of March, and was succeeded by his son Alexander, who disowned the confederacy against Britain, and matters were adjusted with Russia in the month of June.

While the British arms were thus acquiring additional lustre before Copenhagen, the valor and courage of her land troops were crowned with equal glory in EGYPT, which see. Accounts of the final success of our troops in that quarter reached England the day after the preliminary articles of peace had been signed in London, by M. Otto on the part of the French republic, and lord Hawkesbury on that of his Britannic majesty. By these Great Britain agreed to restore all her conquests except the island of Trinidad, and the possessions of Ceylon: the Cape of Good Hope was to be a free port to all the contracting parties: the island of Malta was to be restored to the order of St. John of Jerusulem. Egypt was given back to the Ottoman Porte: and Portugal

was to be maintained in its integrity: the territory of Rome and Naples was to be evacuated by the French: and France was to recognise the republic of the Seven Islands. The fishery of Newfoundland was established on its former footing; and, lastly, the contracting parties were to name the plenipotentiaries to meet at Amiens, for the formation of a definitive treaty. These articles were attacked in both houses of the British parliament, as leaving France in possession of such power as she might renew the war at pleasure. The definitive treaty was, however, ratified in March 1802, and that while the first consul displayed his restless ambition in sending a large armament to St. Domingo, which obliged Britain to send a powerful fleet to watch its motions.

10. *From the peace of Amiens to the Regency.* —Though the people of Britain and France now seemed to congratulate each other on the return of peace, the spirit of the French government was manifest, in shutting their ports more closely than during the war; vainly imagining that they would thus curb the British commerce, and disregarding the loss which their own merchants sustained. Towards the conclusion of this year the subjugation of Switzerland, by the consular armies of France, attracted general attention; and, while other nations beheld in silence the outrages of a conqueror whose power they had so recently felt, the unbroken spirit of the British, who had closed the war with the most brilliant achivements, ventured loudly to sympathise with the brave Helvetians. Government remonstrated on the subject with the ruler of France, but, as they did not follow up their remonstrance with hostile measures, it produced no effect; and Switzerland was placed in the hands of the first consul's dependents. About this time, also, another singular instance of the unprincipled ambition of Buonaparte afforded matter for satirical remark. The French nation declared him consul for life, with the power of nominating his successor. Upon these and other parts of his personal and political conduct, the general feeling of Britain was expressed by the periodical journals in terms so offensive to his pride as induced him to propose that some restraint should be put on the liberty of the British press. He was still more chagrined in a contest of argument and eloquence which he foolishly commenced against the writers of English newspapers, through the medium of the French official journal. This was only a prelude to a renewal of the more serious warfare. On the 8th of March, 1803, orders were given by the British government for hostile preparations. France, during the peace, had been perpetually aggrandising herself; and arrogated a right to interfere in continental affairs, which she denied to Great Britain; she had adopted regulations hostile to our trade; endeavoured to establish spies in the ports of this kingdom; and avowed new projects of subjugating Egypt. The general grounds of war, therefore, for the great object of national independence, had been long prepared; but a matter of comparative insignificance drew them to a point. In the treaty of peace the evacuation of Malta had been stipulated, on the fulfilment of certain preliminary conditions; these conditions were unfulfilled, and the subsequent conduct of France and Spain had rendered their fulfilment impossible. Yet, even in this case, we were called upon to perform our part of the contract. Had Great Britain submitted to this she might have lengthened a little the period of peace, but her independence would have been for ever forfeited; for the dispute respecting Malta, like the precedency of an ambassador, or the priority of a title, however trifling it may appear to superficial minds, involved the mighty question of our existence as a primary or secondary state. A fruitless negociation of two months only served to aggravate the evil; as it drew from the French consul an insult to the nation in the person of lord Whitworth, its representative, and boastful threats of invasion. Preparations, on both sides, for some time constituted the only operations of war; and the enemy, by keeping his fleets in port, afforded us no opportunity of meeting them at sea. One novelty in a rupture of peace, however, occurred: the imprisonment of every British subject, without regard to sex or description, who was found in France.

Both houses of the British parliament were at this time singularly unanimous in their sentiments for the vigorous prosecution of the war. Even the principal members of the opposition, with few exceptions, seemed to vie with each other in support of the ministry. Among the preparations for the defence of the country, both ordinary and extraordinary militia were called out; a new body of troops was raised by ballot, called the army of reserve; and volunteers were raised throughout the island. In the mean time the French ports were closely blockaded, and the island of St. Lucia, Tobago, St. Pierre, and Miquelon, with the settlements of Demerara and Essequibo, were surrendered to the British arms. As the only step of retaliation which the French could now take they seized the electorate of Hanover, where they displayed the most implacable vengeance.

Soon after his majesty's message, on the 8th March, ministers found it expedient to make overtures to Mr. Pitt, inviting his return to office; but they were rejected on the ground, as he alleged, of their not appearing to come from 'the highest quarter;' similar overtures were made to lords Grenville and Spencer, and with the same result. Some changes after this took place in the cabinet, which had no tendency to strengthen the hands of administration. In the period of suspense, which preceded the declaration of war, the precautionary measures adopted were now generally thought inadequate to the occasion; in fact, in most important branches of the public service, they were lamentably deficient. An enquiry which had been instituted by lord St. Vincent, into the abuses in the naval department, had led to a system of retrenchment, which had been so rigorously enforced, that, on the renewal of hostilities, the royal arsenals were not provided with the quantity of stores necessary for the equipment of the fleet; and, in the bustle of preparation, many ships were sent to sea which were actually in a course of repair. With respect

also to the military force, the augmentations were limited to the purposes of defensive warfare. On the other hand, a few days after his majesty's message had been delivered to parliament, the French admiral Linois was despatched from Brest for the East Indies with a strong squadron, having 6000 troops on board, destined to strengthen the French colonies in the east, and to reinforce the Dutch garrison at the Cape. Orders were issued by the French government to increase the forces of the republic to 480,000 men. The army of Italy was considerably augmented; and large detachments were forwarded towards Tarentum, and all the strong posts in the kingdom of Naples which lay on the Adriatic. An army had also been ordered into Holland.

In Hanover the native army made dispositions for a brave resistance, though it proved ineffectual against so overwhelming a force; and the French troops ultimately took possession of the whole electorate, together with all the artillery, baggage, and ammunition: they thus were enabled to control the navigation of the Elbe and Weser, and to levy considerable contributions, under the shape of loans, on the rich Hanse towns of Hamburg and Bremen.

Other nations soon became involved in the contest. On the 17th of June his majesty announced to parliament, that he had communicated to the Batavian government his disposition to respect their neutrality, provided the French government would do so also, and would withdraw their troops from the Dutch territory; but, as this proposal had not been complied with, he had deemed it expedient to recall his minister from the Hague, and to issue letters of marque and reprisal against the Batavian republic. In conformity to another message on the following day, recommending a large additional force to be raised for the defence of the country, ministers proposed to levy an army of reserve, consisting of 50,000 men, whose services during the war should extend to Great Britain, Ireland, and the islands of the Channel. Various objections to the bill were urged in both houses; but it passed without a division, and in the course of the session was followed by another, enabling his majesty to raise a levy en masse of all his subjects in case of invasion. The necessity of this latter measure, however, was in part superseded by the renewal of voluntary associations.

On the 23d of July an insurrection broke out in Ireland, which, from its supposed connexion with the projects of the enemy, created considerable, and, as it appeared afterwards, undue alarm. Its instigators were a band of political enthusiasts, whose director and principal mover was Mr. Robert Emmett, a young man of distinguished talents and brilliant imagination. They had formed the design of establishing an independent Irish republic; and hoped to accomplish it by striking a decisive blow in the capital, possessing themselves of the seat of government, and proclaiming a new constitution which they had prepared. An armed mob collected for this purpose, which marched through the principal streets of Dublin, unresisted, on their way to the castle. They, however, soon lost all sense of subordination to their leaders, and meeting a carriage, in which were lord Kilwarden and his nephew Mr. Wolfe, they dragged them from it, and butchered them on the spot. One circumstance attended this act of atrocity which showed that the infatuation of popular fury could not wholly extinguish the instinctive generosity of the Irish. The daughter of the venerable and ill-fated nobleman was likewise in the carriage; and, to his earnest appeal to their humanity, they replied, that they would sacrifice him and his male companion, but they would spare the lady. They then desired the distracted daughter to escape as well as she could, and allowed her to pass through their entire column without injury or interruption. The insurgents were at length dispersed by about 120 soldiers, and the whole insurrection was speedily extinguished. On the communication of this event to parliament, a bill was passed for trying the rebels by martial law, and another for suspending the habeas corpus act in Ireland. Several of the leaders of the insurrection, among whom was Emmett, having been apprehended, were tried for high treason in Dublin by a special commission, and underwent the sentence of the law.

In consequence of the seizure of Hanover by the French armies, and the interruption of British commerce on the Elbe and Weser, a squadron now blockaded the mouths of these rivers; and another compelled the French finally to abandon the once important colony of St. Domingo. The negro chiefs, on this, issued a proclamation declaring the island independent. See Domingo.

In the East Indies, under the able management of the marquis Wellesley, Great Britain triumphed still more decidedly. To counteract any danger from a possible union of the Mahratta against the British interest, the marquis Cornwallis, so far back as 1789, had concluded the treaty of Poonah, which was afterwards frustrated by the ambition and rapacity of Dowlut Rao Scindia, who had succeeded Madhagee Scindia in 1794, and whose conduct tended to favor the designs of France against the British empire in India. In pursuance of the same course of policy, the marquis Wellesley formed an alliance with the peishwa, and with the nizam of the Deccan, against Scindia, Holkar, and the rajah of Berar, supported by the French general Perron. The peishwa, having in 1802 been expelled from his dominions by Holkar, negociated a subsidiary treaty with the English company, which was concluded at Bessein on the last day of the year.

According to a stipulation of this treaty, a plan for the restoration of the peishwa was adopted, and immediately carried into effect. Orders were despatched to general Stuart, commanding at Hurryhen, directing him to detach from the main body a considerable force, for the purpose of advancing into the Mahratta dominions. The command of this detachment was confided by lord Clive to major-general Arthur Wellesley, whose extensive local knowledge, and personal influence among the Mahratta chieftains, were peculiarly calculated to ensure success.

Holkar having precipitately retreated at the

approach of the British, general Wellesley advanced rapidly to Poonah, which was re-entered by its sovereign on the 13th of May. Meanwhile Scindia and the rajah of Berar were negociating an alliance with Holkar, of which the governor-general happening to obtain certain information, it was resolved to employ the whole military force of the three presidencies, Madras, Bombay, and Bengal, to break a confederacy, rendered particularly dangerous by the junction of Perron, who had obtained the power and influence of a sovereign prince, and, moreover, possessed an army trained up in European discipline. At this critical moment the French admiral Linois, on arriving with a reinforcement of troops before Pondicherry, was prevented from forwarding them; and, on the arrival of intelligence of the renewal of hostilities, all those whom he landed were made prisoners of war. While negociations were carrying on with the confederate chieftains, a comprehensive plan of operations was formed by the British, for a combined attack on the united armies in the Deccan, on the French establishment in the Douab, and on every assailable point in the vast territories of Scindia and the Berar rajah in Hindostan. When the period arrived for commencing hostilities, general Wellesley, who was opposed to the two latter chieftains, marched against the fortress of Amednughur, which he reduced on the 12th of August, and then advanced to Aurungabad. On the 23d of September he extended the foundation of his military renown by a decisive victory at Assaye, over the combined forces of the enemy, consisting of more than six times the number of his own army.

In the mean time the Bombay army had been successful in the Guzzerat, and speedily gained possession of the territories of Scindia in that province. In the months of September and October the town and province of Cuttack were wrested from the rajah of Berar, by a British force under the command of lieutenant-colonel Harcourt. In the north of India, general Lake, at the head of the Bengal army, reduced the strong fortress of Ally Ghur, after compelling to a precipitate retreat the forces commanded by the French general Perron, who from that moment lost his reputation and influence in India, and forfeited the confidence which the native powers had reposed in him. Pursuing his successes, the British general advanced towards the city of Delhi, and gave battle to the army of Scindia, commanded by Louis Bourguein; and, after a severe conflict, obtained a complete victory, which prevented the release of the Mogul emperor Shah Aulum. He then reduced the fort of Agra; and, on the 1st of November, defeated the remainder of Scindia's forces, in which were fifteen of Perron's regular battalions, at Laswaree. In the mean time general Wellesley, following up his victory at Assaye, drove the rajah of Berar into his own territories, and encountering him on the 28th of November, in the plains of Argaum, obtained another splendid victory, which was followed by the capture of Garril Ghur, one of the strongest fortresses in India.

These successes compelled the rajah to sue for peace, which was concluded on the 17th of December. By its conditions he renounced the confederacy against the English, ceded the province of Cuttack, with some other territories, and engaged never to take into his service the subject of any state at war with Great Britain. His example was speedily followed by Scindia, who, entering into similar engagements respecting the Shah, and the employment of foreigners, ceded all his forts, territories, and rights in the Douab, and in the districts northward of the dominions of the rajahs of Jeypoor and Judpoor, together with Baroach in the Guzzerat, and Amednughur in the Deccan. Thus, after a brilliant campaign of five months, this powerful confederacy was dissolved by a treaty which extended and consolidated the dominions of the British, while it annihilated the influence of the French in India.

During this war hostilities broke out in Ceylon between the British and the king of Kandi, who had refused to give satisfaction for the seizure of some property belonging to the former. The king fled from his capital on the approach of the army sent against it, and his throne was occupied by a new claimant, who purchased his elevation by a grant of territory. The exiled monarch agreed to an armistice; and afterwards taking advantage of the absence of the British forces, who had been withdrawn in consequence of sickness, he invested the fort of Kandi, and, after promising a safe retreat to the garrison, murdered the new king, and about 170 Europeans. He afterwards invaded the British possessions, and met with a severe repulse; but he succeeded in re-establishing himself on the throne of Kandi.

On the meeting of parliament in November, 1803, the topics of the speech from the throne were, the successes in the West Indies, the suppression of the Irish insurrection, and the conclusion of a convention with Sweden, for the adjustment of certain differences arising from an article in the treaty of 1661 relative to maritime rights. Referring to the threat of invasion, his majesty declared, that, as he and his brave and loyal people were embarked in one common cause, it was his fixed determination, should occasion arise, to share their exertions and dangers in defence of their constitution, religion, laws, and independence.

When the usual addresses had been voted, acts were passed for continuing the suspension of the habeas corpus act, and the existence of martial law in Ireland. And, as the probable duration of the war demanded an augmentation of the army, troops were voted to the amount of 129,000 men for Great Britain and Ireland, and 38,600 for the colonies and dependencies, exclusive of India. On this occasion Mr. Windham inveighed with great severity against the military system adopted by ministers, and pointed out the inferiority of volunteer associations and bodies of reserve to a regular army of genuine soldiers, disciplined for offensive as well as defensive warfare. In connexion with these military arrangements, a bill was introduced on the 1st of February, 1804, for consolidating and explaining the existing laws relative to the volunteers. In the course of the debates to which it gave rise, Mr. Pitt proposed that this description of force should be subjected to stricter discipline and more active service, that

it might be more nearly assimilated with the regular army; but his amendments were rejected.

On the 14th of February the king was taken suddenly ill while at the queen's palace; and the public sympathy was deeply excited by an apprehension of the return of the malady with which he had been formerly afflicted. The attack, however, was so light, that there was no necessary suspension of the royal functions; and in the course of a month the symptoms of convalescence were so decided as to afford hopes of a rapid and complete restoration to health.

Mr. Pitt now began to institute those enquiries into the conduct of ministers, respecting the defence of the country, which resulted in the dissolution of the Addington administration. On the 15th of March he moved for an enquiry into the administration of the affairs of the navy. He called for the production of an account stating the number of ships and armed vessels in commission at three different periods, 1793, 1801, and 1803, from which he thought the result would be a conviction, that, considering the existing dangers of the country, its naval resources were more inadequate at the present than at any former period. The board of admiralty had considered gun-boats peculiarly serviceable for resisting invasion, yet in the course of a year they had built only twenty-three, while the enemy in the same space of time, had constructed 1000! From the moment that hostilities were renewed, our navy ought to have been increasing instead of diminishing. Notwithstanding which government had only contracted for the building of two ships of the line in the merchant-yards, when it was well known, that during a war the building of ships was always nearly suspended in the king's yards, which were then wanted for repairing damages which our ships might sustain in the service. It was also worthy of remark, that in the first year of the late war our naval establishment was increased from 16,000 to 76,000 seamen, whereas, having begun the present war with an establishment of 50,000, we had augmented them in the course of the last year to only 86,000 men.

Mr. Tierney, in resisting this attack, enumerated the efficient naval force, and asserted that it was adequate to all the purposes both of defence and aggression. Some of his statements, indeed, were controverted by admiral Berkeley, who urged the necessity of immediate enquiry. Mr. Sheridan vindicated the admiralty, and hinted, that lord St. Vincent had rendered himself obnoxious by his laudable zeal in the correction of abuses, and his hostility to all corrupt and fraudulent practices. In that eulogy Mr. Fox also concurred, though he was disposed to believe that the maritime defence of the country had been neglected. The motion of Mr. Pitt was negatived by the small majority of seventy-one, which indicated that the influence of ministers was on the decline.

This change became more apparent in a division on Mr. Fox's motion for an improvement in the defensive system of the country, and in that which took place on the following day (April 25th) in a committee on the army of reserve suspension bill, when the ministerial majority was reduced to thirty-seven. Mr. Addington then determined on retiring from administration, when he had adjusted the financial concerns of the year. The supplies were estimated at £36,000,000 for Great Britain alone, and the ways and means consisted of certain additions to the war taxes, a loan of £10,000,000, and a vote of credit amounting to £2,500,000. On the 3d of May the thanks of both houses were voted to the civil and military officers of the army on the motion of ministers, which was the last act of the Addington administration. On the 12th of May it was announced that Mr. Addington had resigned the office of chancellor of the exchequer, and that Mr. Pitt was nominated his successor.

On the 27th of March, this year (see FRANCE), Buonaparte was addressed by his subservient senate with a proposal for him to assume the title of emperor of France; and this was accordingly effected 1st May.

In the new British ministry, lord Hawkesbury exchanged the foreign for the home department; the seals thus vacated being given to lord Harrowby. Lord St. Vincent was succeeded in the admiralty by lord Melville; the earl of Westmoreland was lord privy seal, and lord Eldon still lord chancellor; the duke of Portland also continued president of the council; lord Castlereagh of the India board; and the earl of Hardwicke lord-lieutenant of Ireland. Mr. Canning was treasurer of the navy.

On the 5th of June the minister produced his plan for raising and supporting an additional permanent military force. Though a real difference of opinion might easily exist on this subject, it was scarcely possible that something of personality should not blend itself with the long protracted discussions on this bill. Mr. Fox and Mr. Windham agreed in the principle, but found much to censure in many of its provisions. It was also assailed by the late ministers, Mr. Yorke and Mr. Addington; the latter of whom enlarged much on the dangerous policy of maintaining an immense military regular force, and of reducing the militia, the ancient constitutional safeguard of the nation.

The bill was ably defended by Mr. Canning, but chiefly by Mr. Pitt himself, who spoke in some chagrin at the combination formed against him, before he had carried into effect any one measure which could be characterised as good or bad. Sincere as he had been in his wishes for an extended administration, such conduct led him to question the possibility of harmony in a cabinet formed of such discordant materials. Mr. Fox, in adverting to this part of Mr. Pitt's speech, said, 'that he believed it to be the opinion of most persons of reflection, that if ever there was a time when it was indispensable that the government should consist of men most respected and distinguished for their ability to serve the country, it was the present moment. Notwithstanding the extraordinary talents of the present minister, it was not to be denied that the country had an inefficient administration. The refusal of certain gentlemen to form a part of that administration, which they could not do without abandoning a principle which, under existing circumstances, seemed to them essential to the public safety, was highly honorable to

their characters. As to himself, he was perhaps less eager than the right honorable gentleman respecting the objects of political ambition; and age had diminished his propensities to engage in such a contest:

Lenit albescens animos capillus
Letium et rixæ cupidos protervæ.

The bill at length passed on a division of 265 to 223 voices.

Mr. Wilberforce, having reason to expect a more cordial support from the present than the former minister, again brought forward, at a late period of the session, his almost hopeless motion for the abolition of the slave-trade, which he enforced with all his accustomed ardor and eloquence in the cause of humanity. It received the support of both Mr. Pitt and Mr. Fox, and the bill brought in for that purpose passed by a decisive majority of seventy-five to forty-nine members. But on its transmission to the upper house, though sixteen years had elapsed since the question was first agitated, it was postponed, on the motion of Lord Hawkesbury, for maturer investigation in the ensuing session.

Two years had scarcely elapsed since the sum of £990,000 had been voted by parliament to make good the deficiencies of the civil list. It now appeared by a statement of the chancellor of the exchequer, in a committee of supply, July 2d, that the arrears again amounted to the sum of £590,000 and upwards. On the present occasion, Mr. Pitt not only moved for a grant equal to the debt, but an annual augmentation of £60,000; and also to exonerate the civil list from a variety of charges which it was now first discovered did not properly belong to it;—all which was voted with singular facility. Exclusive of the vast sums granted from time to time for the discharge of arrears, the droits of the crown and the admiralty had amounted to many millions, offering, as it were, a perpetual bribe for eternal war. The civil list of Ireland was fixed at £225,000; and the revenues of Lancaster, of Cornwall, of the crown lands, of the Leeward Island duties, of fines, &c., must be added to the amount.

On the 10th of July lord Castlereagh brought before the house of commons the financial state of the affairs of the East India Company. He allowed that two years ago he had expressed his firm conviction, not only that the public would receive a participation of £500,000, but that the company would be able to establish a sinking fund of £2,000,000 for the extinction of their debt; but all this was in contemplation of the continuance of peace. But the resumption of hostilities had caused a great deficiency, instead of a great surplus, rendering a loan of £1,200,000 in India a measure of urgent and absolute necessity.

Lord Archibald Hamilton observed, that the house was annually amused with splendid promises of the extinction of the company's debt, and of the approach of that era when India would contribute to the expenses of the empire. On the contrary, the debt was last year £18,000,000 and now increased to £19,000,000. Mr. Francis affirmed that the mischief was in a state of progression. Every year had witnessed the deterioration of the company's finances. At the renewal of the charter it had been provided, that this country should receive £500,000 annually, which, after the first year, however, was never paid. It had been the uniform practice, for the last twenty-one years, to announce the approach of prosperity, by estimates which subsequent events had not justified. Lord Castlereagh entered into long details to prove, that neither he nor his predecessor, lord Melville, had ever held out any promises which would not have been fulfilled, if it had not been for wars that could not have been foreseen. The resolutions proposed by the minister were carried without a division.

On the 31st of July parliament was prorogued, the king expressing his confidence, that, in the issue of the present contest, an effectual barrier would be finally raised against the unbounded schemes of aggrandisement and ambition, which threatened every independent nation that yet remained on the continent.

Mr. Pitt now bent all his efforts to renew his favorite plan of a coalition against France; and by augmenting the regular army, and restoring the navy, to afford the allies of Great Britain the surest prospects of support.

It was no easy task to repair the mischief which the late false system of economy had occasioned in the naval administration. The deficiency may be estimated from the single fact, that the naval stores, which the vigilance of the former admiralty had amassed, were sold at the peace, on the pretext that they were not worth the expense of warehouse room; and agents from France were the principal purchasers. The different convoys were unprotected; the commerce of Great Britain in every sea was exposed to the insults and depredations of the enemy; and the means for blockading the hostile ports were reduced to a shattered and mutilated fleet inadequately manned. On the appointment of lord Melville to the admiralty a total change of system took place; the arsenals were replenished; orders were given for the construction of men of war and frigates in the king's yards, and the practice was revived of contracting for the building of others in the merchant yards; the pressing urgency for a strong reinforcement to the fleets was supplied by the purchase of East India ships; and the most judicious preparations were made for restoring to each vessel in the service its full complement of men.

On the arrest and murder of the duke d'Enghien, the emperor of Russia caused a strong remonstrance to be presented to the French government, and called on the princes of the German empire to demand satisfaction for the violation of its neutrality. The French government replied by observing, that the emperor of Germany and the king of Prussia, most concerned in the fate of Germany, had understood that the French government were authorised in arresting, at two leagues from the frontier, French rebels, who by their conduct had placed themselves 'out of the protection of the law of nations;' a phrase which the French emperor did not afterwards forget teaching his enemies. He now further said, he had no account to render to the emperor of Russia, on a point which in no wise concerned his interests; and he was asked, what

need there could be of empty pretences, if the intentions of his imperial majesty were to form a new coalition?

The appeal of the emperor of Russia to the diet of Ratisbon, failed to rouse the spirit of the Germanic body. The king of Prussia, whose influence in the north of the empire was paramount, evinced no disposition to resist the aggressions of the ruler of France; and his minister, in conjunction with that of Baden, merely expressed a hope that the first consul would, of himself, give such a full and satisfactory explanation, respecting the seizure of the duke d'Enghien, as might entirely correspond with the views of the emperor of Russia. The other states, fearful of the renewal of a contest in which they might risk more than they could hope to gain, maintained an inflexible silence.

The king of Great Britain reminded the diet that a yet greater violation of the treaty of Luneville, and of the independence of Germany, had been committed by France in her unjustifiable seizure of the electorate of Hanover. The king of Sweden, as duke of Pomerania, expressed in still stronger terms his abhorrence of the conduct of France, which he considered as doubly injurious to himself, in his quality of a member of the Germanic body, and in his sovereign capacity of guarantee for the treaty of Westphalia.

But the influence of France seemed paramount in Germany: yet it was not so absolute as to leave her at full liberty to direct her whole force against England. In protesting against the outrage committed against the law of nations, the emperor of Russia had pressed for the execution of a treaty, of which the objects were—a guarantee of the independence of Naples, and an indemnity to the king of Sardinia; and these demands provoked the first consul to remove into Italy some of the battalions destined for the invasion of England.

Austria, in the meanwhile, had been employed in repairing the losses which her armies had sustained in the late war, and in placing her military establishments on the best possible footing. She had been involved in a dispute with the elector of Bavaria, who, either stimulated by France, or calculating on her support, had oppressed the equestrian order in his newly acquired territories of Franconia. On the appeal of that body, the emperor sent a dignified and energetic remonstrance to the court of Munich, and at the same time assured the complainants of his support. This mark of decision served to convince the government of France that there was a line beyond which their aggression must not pass, so long as they deemed it expedient to remain at peace with Austria. France therefore expressed her displeasure at the conduct of the elector of Bavaria, and thus the affair terminated.

Spain, destined to be the first of European nations, who should effectively assail the gigantic power of France, now became involved in the contest. By the treaty of St. Ildenfonso, signed in 1796, she had agreed to furnish France in time of war with a certain contingent of naval and military force. Yet this treaty had not been acted upon in the present war; and in the month of July, this year, the Spanish government gave assurances of faithful and settled neutrality, and disavowed any orders to arm in their ports. In the following month, however, it was ascertained by the British admiral commanding the squadron off Ferrol, that reinforcements of soldiers and sailors had arrived through Spain for the French fleets at that port, and also at Toulon. On this intelligence Mr. Frere presented two notes to the Spanish ministers; but no answer was received to either of them. Towards the end of September it was discovered that very considerable armaments were preparing in the principal ports of Spain; that three first-rate ships of the line had been directed to sail from Cadiz; and that orders had been given to arm the packets, as in time of war.

To the enquiries and representations grounded on this intelligence, no satisfactory explanations were given; and strong measures of precaution were consequently adopted. In particular, the British admiral off Ferrol was instructed to prevent any Spanish ships of war from quitting that port, or any additional ships of war from entering it. At the same time orders were issued to all the British admirals and commanders, to exercise a scrupulous and indulgent forbearance towards the Spaniards, and official notice was given to the court of Madrid of these precautions, with an assurance that Great Britain still felt an earnest desire to maintain a good understanding.

The year 1804 was not signalised by any important naval or military achievements. In the month of January the English settlement at Goree, on the coast of Africa, was taken by a small French force under the chevalier Mahée. On the 7th of March captain Dixon, of his Majesty's frigate the Inconstant, with a store-ship and some sloops under his command, arrived off the island, and, suspecting that it had fallen into the hands of the enemy, sent his first lieutenant to ascertain the fact. As that officer neither returned nor made the preconcerted signal, the captain commenced hostilities by cutting a ship out of the harbour, and stationing his small force in such a position as to cut off all succours from Senegal. On the following morning, as he was preparing to attack the town, he was agreeably surprised to see the English colors hoisted over the French; and shortly afterwards received information, that the garrison had capitulated to the officer sent on shore. Thus, without a blow being struck, the settlement was recovered, and 300 black and white troops were captured.

In the Indian seas an affair took place, which afforded a gratifying proof of British spirit and intrepidity. Admiral Linois, who, after his escape from Pondicherry, had plundered the settlement of Bencoolen, and committed many depredations on the company's trading vessels in those seas, was encouraged by his uninterrupted successes to cruise near the Straits of Malacca, for the purpose of intercepting the homeward-bound China ships. On the 14th of February a fleet of fifteen company's ships and twelve country ships, under the command of captain Dance, who being senior acted as commodore, came in sight of this hostile squadron, consisting of a line-of-battle ship, three frigates, and a brig. Captain Dance immediately made signal to form a line of battle in close order. At sunset the

enemy were close up in the rear, and the country ships were then placed by the commodore on the lee-bow, for better protection. On the 15th at day break, the enemy were three miles to windward, lying to. Both fleets now hoisted their respective colors; and at one in the afternoon captain Dance, not wishing to wait an attack, and apprehensive that his rear might be cut off, made signal to tack, bear down upon the French line and engage them in succession. In prompt obedience to the orders of their commodore, the company's fleet bore down on the enemy under a press of sail. Admiral Linois then closed his line and opened a fire upon the headmost ships, which reserved theirs for a nearer approach; but, before the first three could get into action, the enemy's squadron hauled their wind, and stood away to the eastward under all the sail they could set. At two, the commodore made the signal for a general chase, and pursued his dismayed antagonist for two hours. He then continued his voyage to England, which he reached in safety with his whole fleet. For his gallant conduct, in having put to flight a French admiral commanding ships of war superior in force and in men, and thus preserving from capture a property valued at £1,500,000 sterling, he participated with the various commanders and their brave crews the munificent rewards of the East India Company, and received the honor of knighthood at his majesty's hands.

On the 5th of May the Dutch settlement of Surinam capitulated to a force sent against it from Barbadoes under the command of Sir Charles Green and commodore Hood. The colony, with the ships of war, artillery, stores, &c., was given up to his majesty; the troops were made prisoners of war; and the inhabitants, to their great satisfaction, were placed under the protection of the British government.

Several operations were undertaken against the enemy's armaments on the coast of France and Holland, but they were not crowned with much success. On the 16th of May an attempt was made by Sir Sidney Smith, in the Antelope frigate, with some sloops of war, to prevent the junction of the flotilla from Flushing with that at Ostend. The failure of success was attributed to the want of gun-boats. Fifty-nine sail of the Flushing division reached their destined port in safety; and the English force, after the falling of the tide, were obliged to haul off into deep water, with a loss of about fifty men killed and wounded.

In August an attack was made by captain Owen on the flotilla anchored in the road of Boulogne, but with little success; and those of captain Oliver, made about the same period at Havre, failed of their object, and produced no other result than some damage occasioned by the explosion of shells in the town. But the most mortifying failure to ministers was that of the catamarans as they were called. These were vessels designed to be towed and fastened under the bottoms of the enemy's gun-boats by a man in a small raft: the appearance of about 150 sail of the enemy's flotilla in the outer road of Boulogne seemed to present a favorable opportunity for trying them. Fire-ships of various constructions were to co-operate in the attack: and the experiment was to be made under the direction of lord Keith, who was to cover the smaller force with his powerful squadron. On the 2d of October his lordship anchored at about about a league and a half from the north to the west of the port, and the requisite preparations were made for commencing the attack at night. So strongly were the English ministers interested in its success, that Mr Pitt, and several other members of the cabinet, were induced to witness the scene from the elevation of Walmer Castle. At a quarter past nine the first detachment of fire-ships was launched under a heavy fire from the advanced force, which was answered by a tremendous one from the hostile batteries. The vessels of the flotilla opened a passage for them as they approached, and so completely avoided them that they passed into the rear of the line without doing any damage. At half-past ten the first explosion-ship blew up, producing an immense column of fire but no mischief either to the ships or the batteries. A second, a third, and a fourth, succeeded no better; and at length, when twelve had been exploded, the engagement ceased about four in the morning, and the English smaller vessels drew off without the loss of a man. No perceptible destruction had been effected except of two brigs and some small craft, which seemed to be missing in the morning. The French acknowledged a loss of twenty-five men killed and wounded. Thus terminated, to the confusion of the projectors and the disappointment of the public, an expedition prepared at a greater expense than the merits of the plan, on examination, seems to have warranted.

The remonstrances with Spain having failed to rouse the court of Madrid from the abject state of vassalage to which it had been reduced by an imbecile and corrupt administration, the British government issued orders for the detention of such Spanish ships of war homeward-bound as contained bullion or treasure. Pursuant to these orders, captain Graham Moore was detached from the channel fleet to cruise off Cadiz with the Indefatigable and three other frigates. On the 5th of October he fell in with four large Spanish frigates steering for that port. At his approach they formed the line of battle a-head, and held on their course without regarding his summons to shorten sail, which he gave on placing each of his ships alongside of theirs. He fired a shot across the fore-poop of the second, which bore a rear-admiral's flag, and this had the desired effect of bringing them to parley. He then sent an officer to inform the admiral that his orders were to detain the squadron—that it was his earnest wish to execute those orders without bloodshed—but that the determination on the part of the Spaniards must be instantly made. An unsatisfactory answer having been returned, a close battle ensued, and in less than ten minutes the admiral's second astern, Las Mercedes, blew up with a tremendous explosion. The other Spanish frigates struck in succession, after a considerable loss in killed and wounded.

A most afflicting calamity attended the loss of the Mercedes. A gentleman of rank, who was going to Spain in that ship with his whole family, consisting of his lady, four daughters, and five

sons, had passed with one of the latter on board another frigate before the action commenced, and they had there the horror of witnessing the dreadful catastrophe which in an instant severed them from their dearest relatives, and deprived them of a fortune which had been saved during twenty-five years of service. The cargoes of the captured vessels were of immense value, consisting of gold and silver bullion and rich merchandise. Although this event did not at first occasion an interruption of the negociations at Madrid, his Catholic majesty declared war against England on the 12th of December; and France had thus at her disposal the fleets of her tributary ally.

In the interim she had neglected no means of improving and augmenting her own marine. By a convention, concluded on the 20th of October, she obtained from the Ligurian republic, in exchange for some commercial advantages of a very equivocal nature, the services of 6000 men during the war, and the use of the harbours, arsenals, and dock-yards. Thus the port of Genoa was virtually ceded to her, under an engagement that the Ligurian republic should, at its own expense, enlarge the basin for the reception of ten sail of the line, which were to be immediately constructed.

The rising hostility of Russia and Sweden increased the jealousy of France against the influence of England on the continent; and, under the pretext of frustrating a conspiracy, she committed various insults on the rights of neutral states. On the 25th of October Sir George Rumbold, the English chargé d'affaires in the circle of Lower Saxony, was seized at his country-house near Hamburgh by a party of French troops, who had crossed the Elbe for that purpose. He was conveyed to Paris, imprisoned in the Temple, and released only on signing a parole not to return to Hamburgh, or reside within a certain distance of the French territories. On the subject of this outrage, an application was in vain made by the British minister to the cabinet of Berlin.

In India the peace, which had crowned the success of the late glorious campaign, was interrupted by the intrigues and aggressions of Jeswunt Rao Holkar, an adventurer, who having usurped the dominions of his brother, and renounced his allegiance to the peishwa, laid claim to possessions which would have ensured to him an ascendancy in the Mahratta empire. After a fruitless negociation, for the purpose of inducing him to withdraw within his own territories, the governor-general determined to chastise his arrogance by force of arms. The troops in the Deccan, under general Wellesley, reduced the fortress of Chandore, and other strong places which he held in that country; while lord Lake, who was commander-in-chief, by a series of skilful and rapid movements, compelled his cavalry and infantry to risk encounters, which ultimately led to his discomfiture. On the 13th of November a large body of his infantry, consisting of twenty-four battalions, occupying a strong position near Deeg, supported by a body of irregular cavalry, and by 160 pieces of ordnance, was totally routed by general Frazer, who fell in the moment of victory. On the 17th, after a rapid and extraordinary march with the reserve of his army, lord Lake surprised the main force of the enemy's cavalry, commanded by Holkar in person, near the city of Ferruckabad, and obtained a complete victory, capturing the whole of his baggage, and destroying great numbers of his troops, while the chieftain himself escaped with great difficulty from the field. This splendid success would have decided the contest, had not the unexpected defection of the rajah of Bhurtpore, in violation of a strict alliance with the British, enabled the fugitive to repair his desperate fortunes. At this period a change took place in the government of India. The marquis Wellesley had long expressed his desire to return to England, and was now waiting the arrival of his successor, the marquis Cornwallis, who was appointed governor-general on the 24th of December.

In the beginning of the year 1805 arrived in London a letter from the French emperor, addressed personally to his majesty. He professed 'peace' to be his first wish. 'The world,' said he, 'is sufficiently large for our two nations to live in it; and reason is sufficiently powerful to discover means of reconciling them when the wish for reconciliation exists on both sides. I have fulfilled a sacred duty, and trust your majesty will believe in the sincerity of my sentiments, and my wish to give you every proof of it.' The reply of the English government, dated January 14th, stated that 'there was no object that his majesty had more at heart, than to avail himself of the first opportunity to procure again for his subjects the advantages of a peace, which may not be incompatible with the permanent security and essential interests of his dominions.' 'His majesty is persuaded that this end,' it continued, 'can only be attained by arrangements, which may at the same time provide for the future safety and tranquillity of Europe, and prevent the recurrence of the dangers and calamities in which it is involved. Conformably to this sentiment, his majesty feels it is impossible for him to answer more particularly to the overture that has been made him, till he has had time to communicate with the powers on the continent, with whom he is engaged in confidential connexions and relations, and particularly the emperor of Russia.'

In the interval which elapsed between the date of the overture and the answer, Mr. Pitt was engaged in strengthening his administration, by means of a reconciliation with the minister whom he had so lately superseded. On the 12th of January Mr. Addington was created viscount Sidmouth, and appointed president of the council, on the resignation of the duke of Portland; lord Mulgrave foreign secretary; the earl of Buckinghamshire chancellor of the duchy of Lancaster; and Mr. Vansittart, with other friends of lord Sidmouth, were sworn of the privy council.

The session of parliament commenced on the 15th of January; the speech from the throne informing the two houses of the rupture with Spain, and the rejected overture of the French government.

Mr. Fox observed, that the speech left them entirely in the dark as to the grounds of his majesty's refusal to negociate; and, after the censures thus passed on the violent and unjust conduct of France, he hoped that no imputation of a similar nature would be found chargeable on our own government. After some discussions, the addresses passed without a division.

Lord Grenville, in the house of peers, reprobated, in a speech of great ability, the proceedings of ministers towards Spain. 'The laws of civilised war,' said his lordship, 'allowed no such act of violence as that which had been committed in assaulting the Spanish ships on the high seas. This had been assimilated to an embargo; but was there no difference between delaying merchant vessels, which might be delivered back, and destroying ships navigating the ocean in supposed security? Who can restore the innocent blood that has been spilt? No capture of treasure could wash away the stain thus brought upon our arms.' An amendment to the address, moved by earl Spencer, was negatived by 114 to thirty-six voices; the prince of Wales, through the medium of his proxy given to the earl of Moira, voting in the mino rity.

The supplies for the year amounted to about £44,000,000, of which £20,000,000 were raised by a loan, the subscribers to which received for £100 in money, £172 in 3 per cent. stock. Another loan of £3,500,000 was negociated for Ireland. A considerable addition was made to the war taxes, and the property tax was raised to 6¼ per cent. The new taxes imposed in perpetuity were estimated at £1,600,000; and the minister, while in the act of thus heavily adding to the weight of the public burdens, concluded an eloquent speech by congratulating the house on the increasing prosperity of the country.

In the course of this session proceedings were instituted against a member of administration, which for a long time engaged the public attention. In the month of April a charge was exhibited against lord Melville, first lord of the admiralty, founded on the tenth report of the commissioners of naval enquiry. It was brought before the house of commons by Mr. Whitbread, who, after referring to the act in 1785, for regulating the department of the treasurer of the navy, of which lord Melville, then occupying that post, was himself the supporter, and which advanced the salary of the place from £2000 to £4000, in lieu of all emoluments which might previously have been derived from the public money in the treasurer's hands, stated three heads of charge bearing upon him. These were: his applying the money of the public to other uses than those of the naval department; his conniving at a system of peculation in an individual (Mr. Trotter) for whose conduct he was responsible; and his having been a participator in that peculation. He concluded a speech, in which the particular circumstances of the case were laid open, by moving a number of resolutions founded upon it.

Mr. Pitt, on this occasion, objected to the method of proceeding now proposed, and thought the best course that could be pursued would be to refer the report to a select committee. On a division of the house, there appeared for Mr. Whitbread's motion 216, against it 216, when the speaker gave his casting vote in its favor. Mr. Whitbread then moved an address to the king, requesting him to remove lord Melville from his councils and person for ever; but, at the desire of Mr. Pitt, he agreed to postpone the motion to a future day. When that day arrived the house was informed that lord Melville had resigned his office of first lord of the admiralty, and that Mr. Trotter had been dismissed. The debate then terminated in a unanimous vote, that the resolutions be laid before his majesty by the whole house. It was afterwards announced, that lord Melville's name had been erased from the list of the privy council; and Mr. Pitt assured the house there was no design of re-instating him.

His lordship now requested to be heard at the bar of the house of commons; and acknowledged having appropriated the public money intrusted to him to other public purposes, but solemnly denied having derived any benefit therefrom. He confessed, however, that he had applied the sum of £10,000 in a way which he could not reveal, consistently with private honor and public duty. When his lordship had withdrawn, Mr. Whitbread moved for his impeachment, which was negatived by a majority of 272 to 195; and an amendment moved by Mr. Bond, for a criminal prosecution, passed by the small majority of 238 to 229. His lordship's friends, however, soon after finding reason to prefer an impeachment, a motion for that purpose was made by Mr. Leycester, which, after Mr. Fox's motion for the previous question had been negatived, was carried without a division. Mr. Whitbread, accordingly, accompanied by a great number of members, on the 26th of June, impeached lord Melville, in the name of the commons of Great Britain, at the bar of the house of lords.

A singular bill was subsequently passed, to indemnify Alexander Trotter, and all others called upon to give evidence on the trial of lord Melville, from civil actions. The trial itself, however, on account of the lateness of the session, was postponed to the following year. Lord Melville was succeeded in the admiralty by Sir Charles Middleton, an officer long experienced in the department, upon whom was conferred the title of lord Barham. But the loss of so able a colleague as lord Melville caused deep and lasting chagrin to Mr. Pitt, upon whom almost the whole weight of business now devolved; and his health, previously infirm, manifestly suffered.

A petition from the Roman Catholics of Ireland, to be relieved from the civil disabilities under which they labored, was on the 10th of May introduced into the house of lords by lord Grenville, and into the commons by Mr. Fox. The principal speakers on each side took a part in the debate, but the result was a rejection of the petition in the upper house, by a majority of 178 against forty-nine; and in the commons of 336 against 124. Mr. Pitt having at this time asserted his opinion, that since the union of the

kingdoms he saw none of those dangers from granting the claims of the petitioners, which many seemed to apprehend, and that circumstances had rendered it impossible for him to bring forward the measure at the time he thought most favorable for it; added, that what those circumstances were it was neither now nor then necessary for him to explain; but, as long as they should continue to operate, he should feel it a duty, not only not to bring forward, but not to be a party in bringing forward, or in agitating this very important question. At present, he must say, that the prevailing sentiment was totally against it; and he should give a decided negative to the motion.

On the 19th of June a message from the throne was brought to parliament, the object of which was to acquaint the houses, that the communications which had taken place between his majesty and some of the continental powers had not yet been brought to such a point as to enable him to lay the result before parliament; but that, conceiving it might be of essential importance that he should have it in his power to avail himself of any favorable conjuncture for forming such a concert with other powers, as might afford the best means of resisting the inordinate ambition of France, his majesty recommended to parliament to consider of making provision for entering into such engagements as the exigency of affairs might require. The result of this message was the grant of a sum not exceeding £3,500,000, for that specific purpose. On the 12th of July parliament was prorogued by commission.

The public events of this year place it altogether among the most interesting in the history of the late war. In France the greatest activity was exerted in preparations for the menaced invasion of England. The flotilla of Boulogne was continually augmenting, and the troops encamped in its vicinity were accumulated to upwards of 100,000 men, perfectly disciplined, and placed under the command of some of the ablest generals in the French service. Squadrons of French ships, which had hitherto been cautiously kept in port, were now hazarded out to sea, in order to divide the British naval force; while greater enterprises were projected by the junction of the Spanish and French fleets. On the other hand, adequate means of resistance were provided on this side the channel. The coast on the south of England was fortified on the most exposed parts by a range of martello towers, and every effort was made for increasing the forces by sea and land.

One of the first enterprises of the French was an attempt on the island of Dominica, with an armament of five sail of the line and three frigates, having on board 4000 troops. A landing was effected on the 22nd of February, and the commander proceeded to Prince Rupert's, where the governor of the island, general Prevost, had posted himself with all the force he could muster. Having been summoned without effect, the French, who had levied a contribution on the inhabitants of Roseau, in the attack upon it set the town on fire, and then re-embarked on the 27th. The armament then proceeded to St. Christopher's where a landing was made and a contribution exacted. The same was done at the island of Nevis; after which the squadron returned to France from an expedition, the success of which was by no means adequate to the equipment.

Napoleon set out early in the month of May for Milan, accompanied by his empress, and was received wherever he passed with the highest honors. On the 26th of that month he announced his compliance with the humble request of the states, that he would take upon him the title and authority of king of Italy; and his coronation was performed at Milan with the greatest pomp and solemnity. During the visit to Italy Napoleon accomplished the annexation of the Ligurian republic to the French empire.

A plan for a new constitution was, in the month of March, presented to the legislative body of the Batavian republic by the state directory, which was accepted by the people; and M. Schimmelpenninck being elected first pensionary, he opened the session of the states-general on the 15th of May. All the forms of an independent government were preserved; but the influence of France was apparent in a proclamation soon after issued, by which all commercial intercourse with Great Britain, and the admission, direct or indirect, of all articles of British manufacture, was strictly prohibited.

The negociations between the courts of London and Petersburg, which were alluded to in the king's speech at the beginning of the year, terminated in a treaty, signed on the 11th c April, by which the emperor of Russia and the king of England reciprocally bound themselves to use the most efficacious means for forming a general league of the states of Europe, for the purpose of putting a stop to the encroachments of the French government, and securing the independence of the different states. Sweden and Austria had entered into the same views; but they declined proceeding to hostilities, till an attempt to attain the objects of the alliance by negociation should have proved abortive. A Russian envoy was in consequence deputed to France, who had advanced as far as Berlin on his way, when the intelligence of the annexation of Genoa to France produced his immediate recall. This event determined Austria to become a member of the league; and a treaty for that purpose was signed by her plenipotentiary at Petersburgh on the 9th of August. At the same time a note was addressed by the Austrian ambassador at Paris to the French minister for foreign affairs, expressing the desire of his court to concur with those of London and Petersburg in their endeavours to promote a general pacification. A correspondence followed, of reciprocal professions and accusations, which terminated in having recourse to arms as the only arbiter.

The emperor Napoleon now determined to strike a home blow at his Austrian antagonist before he could be joined by the Russians. Renouncing his project, therefore, of the invasion of England, he broke up the greater part of his camp at Boulogne; and, having augmented

his army in Italy, drew the bulk of his force from Holland and Hanover, and proceeded by rapid marches to meet the Austrians on the Danube. The armies of the latter had passed the Inn into Bavaria early in September, the elector of which had been summoned to join his forces to that of Austria. He withdrew, however, from Munich to Wurtzburg, whilst his troops retreated into Franconia; and, for this defection, his country was subjected to severe exactions.

The French armies, estimated at 150,000 men, advanced in six divisions, under the command of marshals Bernadotte, Marmont, Davoust, Soult, Ney, and Lannes; and, having all crossed the Rhine, were joined at the end of the month by Napoleon, who passed the border with his guards at Kehl. On this occasion he addressed them in a proclamation drawn up in his usual vaunting style, in which he told them—'You are but the van-guard of the great nation; if it be necessary, it will in a moment rise at my voice, to dissolve this new league which British gold and hatred have woven;' and unfortunately these were not vain words. While the details of his campaigns belong to the history of France, their issue was in the highest degree interesting to Great Britain.

By a series of bold manœuvres and successful actions, Buonaparte, by the middle of October, surrounded general Mack in Ulm with 30,000 men, who remained to him after the loss of several detached portions of his army. Preparations were immediately made for storming Ulm, but a summons was at the same time sent to Mack to capitulate, with which he thought it necessary to comply. On the 20th of October the whole of the Austrian troops in that city surrendered themselves prisoners of war, with all their artillery and magazines. Thus was almost annihilated the force with which the Austrians commenced the campaign.

Napoleon proceeding to Munich, at the head of his main body, drove before him a corps of Austrians and the first column of a Russian force. The French crossed the Inn in the face of these allies, who retreated step by step on the road to Vienna. The alarm in that capital was now extreme: the emperor Francis retired with all his court to Brann, while the greater part of the nobility took refuge in Hungary. On the 11th the main body of the French army arrived at Vienna, which they entered in triumph on the 13th, the advanced guard passing through by the bridge over the Danube without halting. On the 15th Napoleon joined the army which was advancing into Moravia to meet the Russians.

Massena had almost equal success against the archduke Charles in Italy; while, in the Tyrol, the archduke John was closely pressed by different French divisions.

The main army of the allies now consisted of about 50,000 Russians, with the emperor Alexander at their head, and 25,000 Austrians, chiefly of new levies. The French, when joined by the divisions of Bernadotte and Davoust, amounted to between 70,000 and 80,000 men, in the highest state of discipline, and full of confidence from past successes. Near Austerlitz, on the direct road from Vienna to Olmutz, was fought, on the 2nd of December, the memorable battle of that name. It was distinguished also as the battle of the three emperors, from the presence of those of Russia, France, and Austria. Napoleon was his own general-in-chief; the Russians were commanded by general Kutusoff; and the Austrians by prince John of Lichtenstein. The French were decidedly victorious.

It was now stipulated by an armistice, that the Russian army was to evacuate Moravia and Bohemia within fifteen days, and Hungary within a month, and to retire by prescribed routes; also that there should be no extraordinary levy of troops in the Austrian dominions during this period. But to these conditions the emperor Alexander refused to become a party, and he commenced a retreat in his own manner on the 6th of December. The archduke Charles, likewise, who was advancing on the bank of the Danube from Hungary with a powerful force, was greatly mortified, on his arrival at Vienna, to find that he was reduced to a state of inaction.

Prussia maintained at this period a cautious neutrality. A violation of her territory by a march of Napoleon through a part of it, without asking permission, did indeed elicit some marks of resentment, but the capture of Mack's army caused the affront to be passed over. A scheme for the recovery of Hanover by Swedish troops in British pay, and commanded by their sovereign, in conjunction with English and Russian troops, was also frustrated by the battle of Austerlitz.

About this time a convention was signed between France and Prussia, by which Hanover was ceded to the latter, and a definitive treaty between France and Austria was concluded on the 26th of December at Presburg, by which the Venetian territory west of the Atlantic was united to the kingdom of Italy; and the Greek provinces east of the Gulf were ceded to France. The electors of Bavaria and Wirtemberg were advanced to the dignity of kings. The Tyrol and Burghausen, with the principality of Eichstadt, were ceded to Bavaria; and the Brisgau and Ortenau to Wirtemberg and Baden. In return the new electorate of Salzburg was incorporated with the Austrian empire, and Wurtzburg assigned in compensation to the archduke Ferdinand.

A treaty of neutrality had been concluded in September between France and Naples; and the French force under general St. Cyr, previously stationed in the Neapolitan territory, joined the army in Lombardy. A combined armament of English and Russians, said to have on board 10,000 British and 14,000 Russian troops, disembarked soon afterwards in that kingdom, not only without opposition, but apparently with every degree of encouragement from the monarch, who was prevented from openly declaring himself only by the speedy termination of the contest. The emperor Alexander then recalled his forces to Corfu, and the British general, Sir James Craig, withdrew into Sicily.

Napoleon now attempted to realise the haughty menace, that the ocean was no longer to belong

to England. Early in the year a squadron of six sail of the line and two frigates, which had been blockaded for more than two years in Rochefort, had found means to elude the British force stationed off that port and put to sea. Soon after the sailing of that squadron an armament of far greater magnitude sailed from the harbour of Toulon. This fleet, commanded by admiral Villeneuve, consisted of eleven sail of the line, and a number of frigates and corvettes, on board of which about 10,000 land forces were embarked. On the 15th of March they quitted the harbour, without being perceived by lord Nelson's squadron, who, preferring active warfare to a rigorous blockade, was then cruising at some distance, in the hope of inviting the enemy to an open engagement. After touching at Carthagena, where there were six Spanish ships of the line, but not in a state of readiness for sea, the French admiral proceeded to Cadiz. That port was blockaded by Sir John Orde, with a British squadron of only five sail of the line, which being too weak to prevent the junction of the enemy, the Toulon fleet was reinforced by that of the Spanish admiral Gravina on the 9th of April, consisting of six ships of the line and a number of frigates. The combined fleets immediately stood out to sea, and before night a strong easterly wind carried them out of sight of Cadiz.

Lord Nelson, then cruising in the Mediterranean, now commenced his memorable pursuit of them. Under the impression that Egypt was their object, the British admiral directed his course thither: but was here surprised at not being able to obtain any intelligence of an enemy. He retraced his course therefore to Sicily, and continued cruising off that island, in the most anxious expectation, till the middle of April.

The British admiral now became satisfied that the enemy had proceeded for the West Indies, and therefore resolved to direct his pursuit towards that quarter. In the Bay of Lagos, he received certain information of the course which they had taken; and, inspired with fresh ardor, he steered with crowding sails for Barbadoes. On his arrival, he received information that they were gone to attack Trinidad. On the following day his lordship sailed for that island, and, successively visiting all the islands, still found himself once more disappointed.

The French admiral, having received intelligence of the arrival of British fleet in those seas, put into Martinique, and, having watered his ships and refreshed his men, on the 7th of June set sail towards Europe.

Lord Nelson, in the mean time, proceeded to Antigua, where, on his arrival, he found that the combined fleets had a few days before passed that island to the northward. He instantly despatched a fast sailing vessel to communicate advice to government, in order that proper measures might be taken to intercept them on their return.

In consequence of this information the fleets were met with off Ferrol by Sir Robert Calder, with fifteen sail of the line. The enemy's fleet consisted of not less than twenty sail; but the British commander did not hesitate a moment in bringing them to action. On the 22nd of July the encounter took place; and the unequal contest terminated with the capture of two Spanish ships of the line, the San Raphael and the Firma, the former of eighty-four, and the latter seventy-four guns.

This result greatly disappointed the public mind, and the disapprobation was so loud and general, that the British admiral returned to England and demanded a court martial, by which he was reprimanded, not for having betrayed either fear or cowardice, but for an error in judgment, in not having made the most of the opportunity afforded him of destroying or capturing every ship of the enemy which it was his duty to engage. The hostile fleets having reached Ferrol in safety, and there augmented their force to twenty-seven sail of the line, next proceeded to Cadiz, and entered the port on the 27th of August.

Lord Nelson on his return from the West Indies proceeded to London, and received an appointment to the command of a fleet of sufficient force to cope with the enemy in any quarter of the world. On the 11th of September he hoisted his flag on board the Victory at Portsmouth, and put to sea on the following day, without waiting for five ships of the line which were preparing to sail with him. Having taken command of the fleet under lord Collingwood, on the coast of Spain, he resumed his former tactics, and, instead of blockading the port of Cadiz, stationed his main force near Cape St. Mary's, establishing a line of frigates to observe and communicate the movements of the enemy. In the middle of October, on being apprised that a reinforcement of seven sail of the line would speedily join him from England, he detached admiral Louis with six ships of the line on a particular service; and this bold manœuvre was performed in so open a manner, that it had the desired effect of inducing the enemy to put to sea.

On the 19th of October admiral Villeneuve, with thirty-two sail of the line, seven frigates, and eight corvettes, got under weigh, and sailed with a light breeze to the westward. On the morning of Monday, the 21st, about day-break, Cape Trafalgar bearing east by south distant about seven leagues, wind nearly west, the combined fleets were discovered six or seven miles to the eastward; and, lord Nelson having received the expected reinforcement, bore down upon them in two columns, containing twenty-seven sail of the line. In his instructions he directed the captains to look to their particular line as their rallying point; but, if the signals should not be clearly understood, no captain could do amiss in placing his ship alongside one of the enemy. The admiral himself, who headed the weather column, was to attack the hostile line near the centre, while lord Collingwood, who conducted the leeward column, was to break it, if possible, at a considerable distance from the extreme rear; and thus, it was hoped, the victory would be decided ere the van could be brought to succor the ships engaged. The last signal issued by this great commander, at the moment of going into action, was, 'England expects every man to do his duty.'

Admiral Villeneuve supposed that the English fleet consisted of only twenty-one sail, and he originally intended to attack them with an equal number of vessels, while twelve of his select ships, acting as a body of reserve, were to bear down and double upon the British line after the action had commenced. On perceiving, however, the real force with which he had to contend, he arranged his ships in one line, forming a crescent convexing to leeward. The conflict began about noon, when admiral Collingwood, in the Royal Sovereign, gallantly entered into action about the twelfth ship from the enemy's rear, leaving his van unoccupied. The succeeding ships broke through in all parts, astern of their leader, and engaged their antagonists at the muzzles of their guns. Lord Nelson, on board the Victory, directed his attack on the enemy's line, between the tenth and eleventh ships in the van; but, finding it so close that there was not room to pass, he ordered his ship to be run on board the Redoubtable, opposed to him; his second, the Temeraire, engaged the next ship in the enemy's line; and the others singled out their adversaries in succession, according to the order of battle. For the space of four hours the conflict was tremendous; particularly in that part of the line where the commander-in-chief had commenced the onset. The guns of his ship repeatedly set fire to the Redoubtable, and the British seamen were employed at intervals during the heat of the battle in throwing buckets of water on the spreading flames, which might otherwise have involved both ships in destruction.

Both the French and Spaniards fought with a degree of bravery and skill highly honorable to their officers and men; but the attack was irresistible. About three in the afternoon the Spanish admiral, with ten sail of the line, joining the frigates to leeward, bore away for Cadiz. Ten minutes afterwards five of the headmost ships of the enemy's van, under admiral Dumanoir, tacked, and stood to the windward of the British line; the sternmost was taken, but the others escaped. The heroic exertions of the British were rewarded by the capture of nineteen ships of the line, with the commander-in-chief, Villeneuve, and two Spanish admirals. The tempestuous weather, which came on after the action, rendered it necessary to destroy all the prizes but four, which were carried into Gibraltar. The fugitive ships, under Dumanoir, were captured off Ferrol on the 4th of November, by a squadron under the command of Sir Richard Strachan.

The loss of the British in the battle of Trafalgar was estimated at 1587 men, killed and wounded; but great as the victory was, and in importance and brilliancy it yields to none in the annals of naval warfare, it was purchased at an immense expense to the country. About the middle of the action, as lord Nelson was walking the quarter-deck, attentive to its progress, and anxiously expecting its issue, he received a shot in the left breast from a musket ball, which wounded him mortally, and he instantly fell. He was immediately carried to the cockpit, where he lived about an hour, employing the short space of time now allotted him in giving orders, receiving reports, and making enquiries concerning the state of the action. The closing scene of his career was not unworthy of his former exploits. In the hour of death he displayed the magnanimity that had marked his character and conduct through life. Conscious of his approaching dissolution, he sent for admiral Collingwood, the second in command, to whom he communicated the particulars of his situation, and then gave the necessary orders to the officers by whom he was surrounded. On being told that the British flag was triumphant, and that fifteen sail of the line had struck, he appeared much consoled. A few moments before his death he said to Captain Hardy, 'I could have wished to live to enjoy this day; but God's will be done.' 'My lord,' replied the captain, 'you die in the midst of triumph!' Nelson replied, 'God be praised!' and almost instantly expired. Thus fell the hero of the Nile, of Copenhagen, and of Trafalgar, after a victory which utterly blasted the hopes of Napoleon for the subjugation and ruin of England. His mortal remains were conveyed to England, and interred in St. Paul's with the highest public honors. Having left no son, the title of earl Nelson, with a permanent revenue annexed, was, by an act of national and enthusiastic gratitude, conferred upon his brother, a private clergyman, all parties on this occasion vying in their expressions of grief and admiration.

Admiral Collingwood was raised to the peerage with a pension of £2000 per annum. The earl of Northesk was honored with the order of the Bath, and a pension. A liberal subscription was set on foot for the relief of those who suffered in the cause of their country; and hundreds of thousands of pounds were readily and cheerfully raised for the relief of the officers, seamen, and marines, who were wounded, and the widows, orphans, and relatives of such as were killed in this memorable action.

In the East Indies the war was continued betweeen the East India Company and the rajah of Bhurtpore, aided by Holkar. Early in the year lord Lake made several successive attacks on the town of Bhurtpore, in all of which he was repulsed with loss. At length Holkar's general, Ameer Khan, having been entirely routed by general Smith, and himself so much reduced that he could give no assistance to his ally, whilst lord Lake was preparing for a new attack on Bhurtpore, the rajah offered proposals for peace, which were acceded to on the 10th of April, on the condition of his yielding to the company the fortress of Deeg, and restoring the districts which had been conferred upon him after the peace with Scindia, together with the payment of a sum of money. In July lord Cornwallis arrived at Madras to take upon him the office of governor-general, to which he had been appointed as successor to the marquis of Wellesley. His lordship, however, was in such a reduced state of health, that he died on the 5th of October, at Gazeepoor, in the province of Benares, in the sixty-seventh year of his age. British India will always be proud to associate with its happiness, its prosperity, and renown, the grateful remembrance of this its highly venerated chief; and the native powers

will long and sincerely regret a man who so deservedly possessed their unbounded confidence. As a patriot, a statesman, a warrior, and a man, the character of the marquis Cornwallis shines with distinguished lustre. Peace was signed with Holkar on the 24th of December; and thus a temporary calm was restored to that part of India.

Since the return of Mr. Pitt to office nothing, the great victory of Trafalgar excepted, had relieved the general disaster and disappointment that attended the measures of the cabinet. At the close of the former session of parliament this distinguished statesman had been compelled, by the visible decline of his health, to relinquish all active share in public business, and retire to Bath. It has been supposed, that the fatal intelligence of the battle of Austerlitz produced an agitation of spirits which powerfully increased his disorder; for on returning to his villa at Putney, near London, he breathed his last on the 23rd of January 1806, in the forty-seventh year of his age, having directed the affairs of his country for a longer period than any other minister. Under his auspices the maritime supremacy of England was confirmed by a series of most splendid victories; her colonial acquisitions were greatly extended; but her public burdens were also enormously augmented. He labored successfully to preserve his country from the contagion of the revolutionary principles that desolated France; and exerted himself with equal zeal, but with less success, in resisting the military despotism by which that power threatened to subjugate the continent. As a financier, he displayed great ability in the accumulation of public resources; but it may be fairly questioned, whether he displayed equal political wisdom in the distribution of them. In forming continental alliances, he relied too implicitly on the influence of money. Those who considered the revolutionary war as unnecessary regarded him as one of the principal authors of the tremendous evils which that contest brought upon Europe. While others, reflecting on the extensive spread and dangerous tendency of the principles of the French revolution, and on the extreme hazard to which Great Britain was exposed, by standing an indifferent spectator till France had subdued the continent, and increased her marine in proportion to her military strength, regard him as the saviour of his country. Every impartial person, indeed, must confess, that he long stood in a situation wholly unprecedented, and difficult beyond example; and the unprejudiced historian will not deny to Mr. Pitt the praise of being a man of firm purpose, honorable pride, and most disinterested principle. If ambition must be allowed to have been a prominent trait in his character, it was the ambition of a great mind. His political views were grand and comprehensive; and, if some of his most favorite plans proved unsuccessful during his life, his successors at last acted upon them perseveringly and won the victory of liberty and civilisation for a prostrate world.

Parliament was opened by commission on the 21st of January 1806. In the speech from the throne the recent victory of Trafalgar was described as an exploit 'beyond all precedent;' and the king, while he deplored the necessity which the emperor of Germany had felt of withdrawing from the contest, was consoled in the prospect of the unshaken adherence of the emperor of Russia, and expressed his full confidence in the inexhausted resources of his dominions. In the debate which ensued, upon this address, lord Grenville remarked, that the state of the country imperiously called for investigation; but that circumstances painful to his feelings induced him to postpone the discussion. In the commons, lord Henry Petty acknowledged his intention of moving an amendment to the address; but, as the attendance of the individual most interested to defend the measures of government was impossible, he should make it the subject of a future motion. The addresses were presented on the 23rd, the day of Mr. Pitt's decease.

Mr. Lascelles now moved, that the late minister be interred at the public expense, and a monument, with a suitable inscription, erected to the memory of 'that excellent statesman.' Objections were instantly started to the motion thus worded, and it was opposed by many distinguished members, who avowed their conviction of his integrity and their admiration of his talents. Among these was Mr. Windham, who declared, that he could not concur in styling Mr. Pitt an excellent statesman, and that the motion did not rest on the basis of historical truth. Mr. Fox said that no one was more ready to acknowledge the private, and even in many respects the public, virtues of Mr. Pitt. His great eloquence, and splendid talents, cast a veil over the system upon which he acted, and concealed its deformity. And, however desirous he might be to bury in oblivion former contests, he could not consent to confer public honors on his memory, upon the ground of his being an excellent statesman.

Lord Castlereagh pronounced this to be a question of feeling rather than of argument; and he urged that the house would act inconsistently with its own opinion, repeatedly expressed, if it hesitated to recognise the merits of Mr. Pitt. He at the same time confessed, that, had he framed the motion, it would have been couched in much stronger terms. On a division of the house the numbers were 258 to eighty-nine. The sum of £40,000 was subsequently voted for the payment of Mr. Pitt's debts.

The death of this distinguished statesman caused a total change in the ministry. Lord Eldon resigned the seals, and the honorable Thomas Erskine was appointed lord chancellor, and constituted a peer of the realm by the title of lord Erskine. Lord Grenville, whom the king had sent for and empowered to form a new administration, including Mr. Fox, who had now been estranged from the royal councils more than twenty years, was appointed first lord of the treasury; and lord Henry Petty chancellor of the exchequer. Earl Fitzwilliam president of the council; Viscount Sidmouth lord privy seal. Mr. Fox was made secretary of state for foreign affairs; lord Spencer secretary for the home department; and Mr. Windham secretary at war.

Mr. Grey first lord of the admiralty, and Mr. Sheridan treasurer of the navy. Earl Moira master-general of the ordnance, and general Fitzpatrick secretary for the colonies. His grace the duke of Bedford was appointed lord-lieutenant of Ireland, and Mr. Elliott principal secretary. Lord Ellenborough, lord chief justice of the court of king's bench, was also appointed to a seat in the cabinet. Sir Arthur Pigot and Sir Samuel Romilly were nominated attorney and solicitor-generals.

On the 28th of March the new chancellor of the exchequer brought forward the budget for the year. The amount of the ways and means was £43,618,472, and of the supplies £43,630,000. The war taxes, amounting to £11,500,000, were to be increased to £19,500,000, and a new loan of £18,000,000 was proposed. Mr. Windham brought in a bill for enlisting the regular army for a term of years instead of for life, as heretofore. This regulation, which forms an epoch in the military history of England, met with general approbation. The infantry were to be enlisted for seven years, and the cavalry for ten. The plan, however, did not pass without much debate, in the course of which lord Castlereagh affirmed the state of the country to be prosperous and flourishing, and that the present ministers 'reposed on a bed of roses.'

Certainly, however, the country did not. On the 30th of January his Prussian majesty signified his intention of taking possession of Hanover, agreeably to the late convention with the emperor of France. This was followed by a second proclamation, dated the 28th of March, ordering the Prussian ports to be shut against the vessels of Great Britain. In consequence of these hostile proceedings, Mr. Fox, on the 21st of April, brought down a message from his majesty, informing the house of commons that he had thought it proper to adopt measures of retaliation, by issuing orders for the blockade of the Elbe, the Weser, and the Ems, and for the capture of Prussian vessels. We have seen that, from the year 1788 to the death of Mr. Pitt, the subject of the abolition of the slave trade was never lost sight of by Mr. Wilberforce. It was brought from time to time under the notice of parliament, with various degrees of success; and gradually gained ground: on the 28th of February, 1805, the bill for the abolition was lost in the house of commons, by a majority of only seven voices.

The honor of accomplishing this great object was reserved for Mr. Fox and his colleagues. On the 11th of June, 1806, Mr Fox carried a resolution in the house of commons, 'That this house, conceiving the African slave trade to be contrary to the principles of justice, humanity, and sound policy, will, with all practicable expedition, take effectual measures for abolishing the said trade, in such manner and at such period as may be deemed most desirable.'

The bill met with only a feeble opposition. It was strenuously supported by Mr. Wilberforce and all the members of administration, and carried by a majority of 115 against fifteen. In the course of the debate the solicitor-general stated, from documents before the house, that since the year 1796, that is during the last ten years, upwards of 360,000 of the natives of Africa, torn from their country by Europeans, had either been sold into slavery, or had miserably perished in their passage to the West Indies. The crimes perpetrated in this traffic had equalled, if they had not exceeded, in horror and enormity, those of the French revolution, and had been constantly repeated during the space of three centuries.

The trial of lord Melville, on his impeachment by the commons, was a circumstance of considerable interest in the transactions of the year. It commenced in Westminster Hall on the 29th of April, before the lords, the members of the house of commons being present in a committee of the whole house. The articles of the charge were ten in number, but in substance were reducible to three. 1. That, as treasurer of the navy, he had applied divers sums of public money to his private use and profit. 2. That he had permitted his paymaster, Trotter, to take large sums of money from the bank of England, issued to it on account of the treasurer of the navy, and place it in his own name with his private banker. 3. That he had permitted Trotter to apply the money so abstracted to purposes of private emolument, and had himself derived profit therefrom The trial was conducted with unusual despatch for a proceeding of that nature, the evidence and arguments on both sides being closed on the 17th of May, and sentence pronounced June 12th. The result was, that, by a majority, his lordship was pronounced not guilty upon each of the ten articles; but on four of them the majority for his acquittal was considerably less than double the number of those who gave a contrary judgment. The whole number of peers who voted was 135.

An important commercial law was passed during this session of parliament, namely, for permitting the free interchange of grain of every kind between Great Britain and Ireland without either bounty or duty: the good effects of which, to both countries, have since been amply experienced. An act also passed under the title of the American intercourse bill, though not without violent opposition, for legalising the trade for lumber and provisions carried on by neutrals to the West India Islands, which in time of war had generally been found indispensably necessary, though violating the navigation laws. It empowered the king in council, when such necessity should arise during the present war, to authorise his governors, under such restrictions as should seem fit, to permit this traffic, with the proviso, that neutrals should not import any commodities, staves and lumber excepted, which were not the produce of their own countries, and should not export sugar and other products of the islands.

On the 30th of March Joseph Buonaparte was proclaimed king of Naples, and the king and queen of that country retired to Palermo. An ineffectual attempt on Calabria was made by Sir Sydney Smith in April; and in July, at the urgent request of the court of Palermo, Sir John Stuart, who commanded the British troops in Sicily, em-

barked a body of about 4800 effective men, in the gulph of Euphemia. General Regnier with his troops being encamped some miles' distance at Maida, Sir John determined upon attacking him before he should be joined by his expected reinforcements.

The junction, however, had been made on the night before, and the enemy, to the number of about 7000, descended from the heights, and marched into the plain to meet the assailants. After firing for some time both armies rushed on with the bayonet, when the superior firmness of the British soldiers soon decided the contest. As soon as the weapons crossed, the French gave way, and were pursued with a dreadful slaughter. The consequence of this brilliant action was a general insurrection of the Calabrian peasantry, and the expulsion of the French from the province.

Efforts of this kind, however, were inadequate to the promoting of any permanent change; and Sir John Stuart, sensible that he could not long maintain his ground in Calabria, prepared for returning to Sicily. The French, soon after the battle, reduced the fortress of Gaeta; and general Fox, who took the command of the British troops in Sicily, refusing to concur in the hopeless plans of the court of Palermo for recovering Naples, the new government in that kingdom remained undisturbed, except by intestine disorders.

About this time an important present acquisition was made by the British arms in South America. After the reduction of the Cape of Good Hope, Sir Home Popham and general Beresford, who had been sent out in the autumn of 1805 with a force of about 5000 men, judging it expedient to make an attack on some of the Spanish settlements in South America, embarked a part of the land forces; and after a tedious passage arrived on the 6th of June at the mouth of the Rio de la Plata. The squadron, after having occupied nine days in proceeding about eighty miles, came to anchor off the point of Quilmay, about twelve miles from Buenos Ayres, which the British commanders had resolved to attack in preference to Monte Video.

On the 25th, in the course of the afternoon and night, a landing was effected without opposition; though a body of the enemy, consisting of about 2000 men, chiefly cavalry, with eight field-pieces, was posted at the village of Redaction, on a height about two miles distant from the place where the troops disembarked, and directly in their front. The whole intermediate space, as well as to the right and left, was a swampy flat, where the artillery was of little service. On the British crossing the swamp, the Spaniards opened a fire from their field-pieces, which at first was well directed; but, part of the English troops having gained the heights, the enemy retired, leaving behind them four field-pieces and a tumbril. Here the army halted for the night; and in the morning, finding the bridge over the Chuelo destroyed, general Beresford determined on forcing the passage of that river. He was now about three miles from Buenos Ayres, and the enemy opened an ill-directed fire of cannon and musketry; the former of which was soon silenced, though the latter was kept up more than half an hour, but so as to do very little injury to the British.

About eleven o'clock in the forenoon the greatest part of the English troops, with some of their guns, had got over the river; and general Beresford, having learned that most of the troops had abandoned the city, sent a summons to the governor, who agreed to a capitulation, of which the principal articles were, security to their religious worship to the persons of the inhabitants, and to all private property. The amount of the public treasure taken at Buenos Ayres amounted to 1,291,323 dollars; of which 1,086,203 dollars were embarked on board the Narcissus, and the remaining, viz. 205,115 were left in the treasury.

Sir Home Popham, in the triumph of the moment, transmitted a circular letter to the chief commercial towns of Great Britain, informing them 'that a whole continent was laid open to the British trade;' and the most extravagant speculations were accordingly directed to this quarter: but, though so small a force had sufficed to acquire, it was wholly inadequate to retain this unwieldly conquest; and in a short time Buenos Ayres was recovered by the Spaniards, under the conduct of colonel Linieres, a French officer in the South American service; and our troops, with general Beresford their commander, were made prisoners of war. Sir Home Popham, nevertheless, continued to blockade the entrance of the river; and, on the arrival of reinforcements from the Cape, made an unsuccessful attempt on Monte Video.

The naval operations of the year were few, but uniformly successful. A French squadron of five sail of the line was encountered, in the month of February, off the coast of St. Domingo, by a superior force under admiral Duckworth. After a furious action three of them struck their flags, and the other two were driven on shore, and burnt. In the east, the French admiral Linois was captured by Sir John Borlase Warren, on board the Marengo of eighty guns, with the Belle Poule of forty guns, on his passage back to France, enriched with various plunder. A large convoy from Rochefort was intercepted by Sir Samuel Hood, and four out of five large frigates were taken, with troops on board destined for the West Indies. A remarkably gallant exploit was also achieved by lord Cochrane, who commanded the Pallas, in cutting out three Spanish vessels under a heavy fire from the protecting batteries of Avillos.

Negociations in the interim were carrying on between the courts of France and England, which for a time afforded a prospect of peace. They originated in Mr. Fox having disclosed to M. Talleyrand a plot for the assassination of the French emperor. In reply an extract was enclosed to the British minister from a speech of the emperor to the legislative body, March 2: 'I desire,' it is said, 'peace with England. On my part I shall never delay it for a moment: I shall always be ready to conclude it, taking for its basis the treaty of Amiens.'

As this intimation was understood to be intended as an opening to negociation, Mr. Fox,

after a short interval, returned an answer expressive of 'the cordial disposition of the English government to treat on the general basis of a peace honorable to both countries, and to their allies;' adding, 'that the existing ties between England and Russia were such, that England could not treat, much less conclude, but in concert with the emperor Alexander.' M. Talleyrand replied, 'that the emperor Napoleon adopted the general principle laid down by Mr. Fox; but thought there was no necessity for the intervention of a foreign and distant power.'

It happened that among the English detained in France was a young nobleman, the earl of Yarmouth, in whose discretion and ability Mr. Fox could confide. Being invested with the requisite powers, this nobleman repaired to Paris, in order to open the negociation; but the difficulty respecting Russia retarded his progress. Other subjects of difference were Hanover and Sicily. No exchange or indemnity for the first could be hearkened to; and, in his despatch of June 13th, lord Yarmouth informed the English minister of the declaration which M. Talleyrand had at length made, 'that, considering the extreme stress which was laid on this point, Hanover should make no difficulty. And, with regard to Sicily, M. Talleyrand after a time replied: 'You have it: we do not ask it. Had we the possession, difficulties would be much augmented.' In another conversation, however, M. Talleyrand insinuated, that Russia was inclined to treat separately; and also mentioned, that the emperor of France had received despatches from his brother and the general officers under his orders, stating, that Naples could not be held without Sicily, and the probability which they saw of gaining possession of that island.

On the 26th of June Mr. Fox, though at this time rapidly declining in health, addressed an excellent despatch to lord Yarmouth, expressing his astonishment at the tergiversation of M. Talleyrand. The recognition of the French emperor, and the other new potentates, he regarded as a full compensation for the restoration of Hanover. He transmitted to lord Yarmouth the full powers upon which the French minister had laid so much stress; but with orders fairly to state to M. Talleyrand, that he had no authority to make use of them until that minister returned to his former ground respecting Sicily. He remarked, that if D'Oubril, the Russian ambassador, had offered to treat separately, it was only in the way that lord Yarmouth himself treated; that is, in form, but substantially in concert. Naples and Istria, Mr. Fox admitted, were not to be conclusive against agreeing to provisional articles, subject to the approval of Russia; or, as he explained himself, 'that those articles should not have effect till a peace should be concluded between France and Russia.' On the 1st of July lord Yarmouth acknowledged his receipt of the full powers with which he was now vested by the British government; and mentioned his communication of the same to M. Talleyrand, who merely said, 'that change of circumstances during a negociation, were always valid reasons for a change of terms: that had any confidential overture been made three months ago, France would have been ready to settle the question of Naples in the manner most satisfactory to Great Britain: the same a month later with regard to Holland.' At the close of the conference, lord Yarmouth repeated, 'that it was impossible to proceed with the negociation till every mode of seeking to obtain possession of Sicily was entirely relinquished.' On subsequently demanding his passports, M. Talleyrand took the opportunity of offering the Hanse towns as an establishment for the king of Naples. But on the 5th of July, being the very next day after the receipt of lord Yarmouth's letter, Mr. Fox peremptorily replied, 'that the abandonment of Sicily was a point which it was impossible for his majesty to concede. The demand of France was inconsistent with the whole principle on which the negociation rests; and the proposal of M. Talleyrand is, of itself, quite inadmissible. To the original basis of the negociation, therefore, lord Yarmouth was directed to advert; and, if this was not accepted, to state, in perfectly civil yet decided terms, that he was not at liberty to treat on any other ground, and therefore to desire his passports.' The earl of Yarmouth having strictly complied with his instructions, M. Talleyrand now offered a further proposition from the emperor, tendering Dalmatia, Albania, and Ragusa, as an indemnity for Sicily. This, he was assured, would not be accepted; however, the English negociator consented to wait the return of the messenger; M. Talleyrand adding, 'that, if peace was made, Germany should remain in its present state.' At this critical juncture, the indisposition of Mr. Fox had so alarmingly increased as to render him incapable of attending to business; and the succeeding despatches, transmitted under the sanction of his name, were fairly acknowledged, at a subsequent period, not to have proceeded from his pen. The elaborate answer of July 18th to lord Yarmouth's last despatch, most unhappily and unseasonably wavered upon the grand point of Sicily. 'An exchange,' says the writer of that despatch (generally ascribed to lord Grenville) 'is now offered for Sicily; and it is in that view, and not in that of an absolute and uncompensated cession, that the question is now to be considered; and to this the full and free consent of its sovereign is necessary, which is not likely to be obtained by the offer of Dalmatia.' The writer then suggests the addition of Istria, and of a large portion of the Venetian states, including, if possible, the city of Venice: and lord Yarmouth was directed to continue the conferences with M. Talleyrand, to ascertain whether any more practicable shape could be given to the exchange.

While matters were in this state a treaty for a separate peace was concluded between France and Russia: after which lord Lauderdale was united with lord Yarmouth in the negociation; but, after several formal attempts, found it impossible to proceed upon any reasonable basis. At this critical moment, on which peace or war seemed to be suspended, Mr. Fox who had been for some time afflicted with a dropsy, expired on the 13th of September 1806, in the fifty-ninth year of his age; and thus, in the midst of tumultuous wars and of uncertain negociations,

Great Britain was called to mourn the loss of a patriot and a statesman who has had few equals. See our article Fox. Here we need only add, while the subverters of thrones and the spoilers of kingdoms are crowned with triumphant laurels, and congratulated with applauding pœans, it is to the honor of Mr. Fox, that he never gave a vote in the British senate by which one drop of human blood had been spilt, or the treasures of the nation lavished away. He,

'Midst jarring conflicts, stemmed the tide of blood,
And to the menaced world a sea-mark stood;
Whose wisdom bade the broils of nations cease,
And taught the world humanity and peace.

On the death of this lamented statesman some new arrangements became necessary among the members of administration. Lord Howick succeeded Mr. Fox in the office of secretary of state for foreign affairs, and Mr. Thomas Grenville succeeded him as first lord of the admiralty. Mr. Tierney became president of the board of control, to which the former gentleman had been appointed, on the nomination of lord Minto to the government of India. Lord Sidmouth was president of the council in the room of earl Fitzwilliam, who retired in ill health; and the vacant office of privy-seal was assigned to lord Holland. These changes were rather unexpectedly followed by a dissolution of parliament.

On the continent of Europe, at this crisis, the subversion and creation of kingdoms were become common operations. The territory of the Batavian republic being full of French troops, who garrisoned all the fortified towns, an edict of their emperor was all that was necessary to create a king, and furnish him with a kingdom. On the 9th of June this change in the constitution was notified to their high mightinesses the states-general, by M. Verneul, who, being just arrived from Paris, opened the special commission which he had received from prince Louis Buonaparte, as king of Holland. On the 24th the new king and queen made their public entrance into the Hague. The revolutions of Germany were equally remarkable. The fatal battle of Austerlitz had crippled the power of Austria, and virtually subverted the Germanic constitution, on the ruins of which was now formed the Confederation of the Rhine. See CONFEDERATION.

By this confederation the Germanic body was completely dissolved, and a very considerable part of its members ranged themselves under the banners of France. In consequence of this defection the emperor Francis II. resigned his high office of emperor of Germany. On the 7th of August a proclamation for that purpose was issued at Vienna, in which his imperial majesty the emperor of Austria declared, that, convinced as he was of the impossibility of being enabled any longer to fulfil the duties of his imperial functions as emperor of Germany, he owed it to his principles to renounce a dignity which was valuable in his eyes only whilst he was able to enjoy the confidence of the electors, princes, and other states of the empire; and that, considering the confederation of the Rhine as having dissolved the ties that united him to the Germanic body, abolished the Germanic constitution, and annulled the office of emperor, he therefore resigned the imperial crown and government, and absolved the electors, princes, and states, the members of the supreme tribunal, the magistrates, and all others belonging to the empire, from their allegiance to him as chief. Thus was dissolved the German, or as it was styled in diplomatic language the Holy Roman Empire, 1000 years after Charlemagne had received the imperial title from the hands of the pope at Rome.

Prussia, however, still was determined on a struggle against the dominant genius of Buonaparte; and seemed at this time to glory in entering the lists alone with him. On the 9th of October appeared a declaration of Frederick William, filled with the most humiliating confessions of the lengths to which she had gone in subservience to France, and with expressions of resentment on being made its dupe and its victim. It nevertheless allows that 'the possession of Hanover, could it have been obtained under less unhappy circumstances, would have been of invaluable advantage to Prussia. The king therefore conceived, that he reconciled his wishes with his principles when he accepted of the proposed exchange only under the condition of delaying the fulfilment of the same till a general peace, with the consent of his Britannic majesty.'

Early in October the duke of Brunswick, to whom was committed the chief command of the army, fixed his head-quarters at Weimar, the army extending along the banks of the Saale. The Saxons served as auxiliaries under prince Hohenloe on the left, and the whole collected force exceeded 100,000 men. The French advanced from Bamberg in three divisions; and after various partial encounters, in one of which prince Louis, brother to the king of Prussia, lost his life; the two armies, nearly of equal strength, but very unequally commanded, seemed to assume an attitude of mutual defiance.

The French emperor, by superior manœuvres, now succeeded in turning the left of the Prussians, and in cutting off the communication with their magazines: on which he occupied in force the heights of Jena, which had been thought impracticable for artillery; and on the eve of the 13th of October the two armies encamped within cannon-shot of each other. The action commenced two hours after day-break, and quickly became general, exhibiting for some time reciprocal skill and bravery; but a fierce assault from the French cavalry and cuirassiers, under general Murat, at once decided the fortune of this memorable day. All attempts to restore order were in vain: universal consternation ensued. Nothing resembling even a regular retreat could be effected; and, in the flight of the Prussians towards Weimar and Naumburg, multitudes were slaughtered, and a still greater number made prisoners. The duke of Brunswick himself was mortally wounded, and the entire loss did not fall short of 40,000 men; while that of the French, if their own account may be credited, was below 5000. Further resistance seemed not to be thought of. Erfurt, Magdeburg, Stettin, Leipsic, and Spandau, sur-

rendered almost on the first summons; and on the 25th of October the marshals Davoust and Augereau entered Berlin.

From Berlin the French emperor issued a decree, dated 20th November, 1806, interdicting all commerce and correspondence between the countries under his government and the islands of Great Britain, which he declared to be in a state of blockade; denouncing all English property as lawful prize; and all vessels touching at any port in England, or any English colony, were excluded from the harbours of France, or the countries under its control. This was vindicated as a measure of retaliation for the flagrant violations of the laws of maritime neutrality by Great Britain; and, extravagant as the terms of the decree might seem, its effects were severely felt.

After the dreadful defeat of Jena, the king of Prussia had retired to Koningsberg, where he was actively employed in collecting the scattered and feeble remains of his forces. In the mean time the French, under Jerome Buonaparte, made themselves masters of Silesia, and the barrier, which seemed to have wholly separated France and Russia, was now broken down. On this the emperor Alexander resolved to make a grand effort to protect his own dominions, as well as to support the throne of Prussia. While marshals Davoust and Lasnes entered Prussian Poland, a large force was collecting in different parts of the Russian empire, and began to move towards the frontier.

The Russians, having crossed the Vistula on the 26th November, met the French advanced posts, which finding themselves unequal to resist, they repassed that river; and two days after, the duke of Berg, with a division of the French army, entered Warsaw. About a month after the forces of these two great powers came into contact in the battle of Pultusk. The Russian general Benningsen, having taken a position at this place, was attacked by the French on the 26th December, led on by marshals Davoust and Lasnes, under the immediate direction of the emperor of France. Davoust, with 10,000 men, fell upon the left wing of the Russians; at the same time the attack on their right was extremely impetuous, and conducted by Napoleon in person. The conflict was extremely obstinate, and continued till night. The enemy was certainly repulsed; but the French and Russian accounts are extremely contradictory. Both sides laid claim to the victory, but neither gained ground. The loss was unquestionably great; and, from subsequent circumstances, it appears to have been nearly equal.

On reaching Eylau the Russian commander sent general Marcoff to take possession of the town, and a sanguinary conflict again ensued between his corps and several columns of the enemy. The Russians, after an obstinate contest, made themselves master of the town on the 7th of February, 1807; but the French advanced in such force that they were obliged to retreat. In consequence of this reverse general Benningsen ordered another division to advance, which, marching in three columns, bore down all opposition, and retook Eylau by assault.

On the following day the action was renewed, and became general. It would exceed the limits of this summary to follow the official accounts of the operations; but they assert that all the attempts of the French cavalry to break the Russian columns were defeated. 'In vain, says Benningsen, 'did the emperor of France lavish his last resources; in vain did he endeavour to excite the courage of his soldiers, and sacrifice so great a part of his army: the bravery and persevering courage of the Russians withstood all his efforts, and snatched from him a victory which had long remained doubtful.' At midnight the Russians remained masters of the field of battle; but in the morning retreated, and the French took possession of the town of Eylau.

After this the armies of France and Russia remained, for a considerable time, inactive. Warlike operations, however, continued in Swedish Pomerania, where, after a number of actions fought with various success, the Swedes were at last driven into Stralsund. In the month of April a division of the French army commenced the siege of Dantzic; and the houses of the suburbs were destroyed to the value of 9,000,000 of livres; the damages occasioned in the city itself, by the cannonade and bombardment, were estimated at 12,000,000. The Russians, notwithstanding their assumed victory at Eylau, could never make an effort for the relief of this city; which, on the 28th of May, surrendered to the French by capitulation.

The fatal day at length arrived which was to decide the mighty contest. That day was the 14th of June, the anniversary of the battle of Marengo. Having put his soldiers in mind of this circumstance, the emperor Napoleon prepared for an attack on the Russian position at Friedland. The battle did not commence till half past five in the evening, when marshal Ney and general Marchand advanced, while general Bisson's division supported their left. The Russians attempted to turn marshal Ney with several regiments of cavalry, preceded by a numerous body of Cossacks. But general Latour Mauberg immediately formed his division of dragoons, and, advancing to the right at full gallop, repelled their charge. In the mean while general Victor ordered a battery of thirty pieces of cannon to be placed in the front of his centre; and general Summermont having caused it to be moved about 400 paces forward, the Russians sustained a dreadful loss from its fire. The different movements which were made to effect a diversion proved useless. Several columns of the Russian infantry attacked the right of marshal Ney's division, but were charged with the bayonet, and driven into the Alle, in which river several thousands found their death. While Ney advanced to the ravine which surrounds the town of Friedland, the Russian imperial guards made an impetuous attack on his left. This corps was for a moment shaken; but general Dupont's division, which formed the right of the reserve, marched against the guards, and routed them with dreadful slaughter. The Russians then drew several reinforcements from their centre, and other corps of reserve, to defend Friedland; but, in defiance of all their efforts, the town was forced, and its streets covered with dead bodies. At this

moment the centre of the French, commanded by marshal Lasnes, was attacked; but the Russians could make no impression. This sanguinary contest was decided chiefly by the bayonet, and the result was the total defeat of the Russians. The carnage that now ensued was dreadful. According to the French bulletins, the Russians left from 15,000 to 18,000 dead on the field, and the number does not appear to be greatly exaggerated. But it is difficult to give implicit credit to their relations, when they state their own loss at no more than 500 killed, and 6000 wounded. The French took eighty pieces of cannon, a great number of caissons, and several standards.

This sanguinary action was followed by an interview between the emperors of France and Russia and the king of Prussia, on the 7th of July, and a treaty of peace was concluded at Tilsit between France and Russia, and a few days afterwards between France and Prussia. The principal articles were, that a part of the Prussian dominions, especially on the eastern side of the Elbe, should be annexed to the new kingdom of Westphalia. Those parts which had been wrested from Poland, and become subject to Prussia, were ceded to the king of Saxony, under the title of the duchy of Warsaw, with a free communication with Saxony by a military road through the king of Prussia's dominions. The city of Dantzic, with a surrounding territory of two leagues, was restored to independence. The navigation of the Vistula was to be free. Russia acknowledged Joseph Buonaparte and his brother Louis, as kings of Naples and Holland, and Jerome as king of Westphalia. The emperor of all the Russias also acknowledged the confederation of the Rhine.

The French emperor also agreed to accept the mediation of the emperor of Russia, in order to negociate and conclude a peace with Great Britain, under the condition, however, that this mediation should be accepted by England within a month after the conclusion of the treaty of Tilsit. By secret articles of this treaty, the ports of Prussia, as well as of Dantzic, were to be shut against the vessels and trade of Great Britain; and it is not certain whether the emperor of Russia was not bound by the same condition. By another secret article, Russia had consented to cede Corfu and the Seven Islands as an appendage to France. In the month of August a Russian officer, attended by French commissioners, arrived there; and, having convened the senate, opened a despatch from the emperor Alexander, in which his imperial majesty declared that he renounced all the rights which he possessed in quality of protector of the Seven Islands, and ceded them to his majesty the emperor of the French and king of Italy. The king of Sweden refused to accede to the treaty of Tilsit.

In December 1806 the new parliament was opened, and the great measure of the abolition of the Slave Trade finally accomplished.

On the 5th of January the papers relative to the late negociation were taken into consideration in parliament. The conduct of government was ably vindicated by the chiefs of administration in both houses, and addresses voted without a division. There were individuals, however who expressed their dissatisfaction on very opposite grounds. Mr. Whitbread, in the commons, in a masterly speech, declared, that war, eternal war, ought not to be waged for Sicily and Dalmatia; and he moved an amendment, expressive of the hope entertained by the house, that his majesty would make every arrangement, consistent with honor, for the restoration of peace. Lord Yarmouth declared his firm conviction, that the negociation would have been brought to a favorable conclusion had it not been for the melancholy event of the death of Mr. Fox.

On the 20th of February lord Howick intimated his intention of preparing some additional and very necessary clauses for insertion in the mutiny bill. By the Irish mutiny act, passed in 1793, Catholics were allowed to hold any rank in the army under that of general on the staff in Ireland, though in Great Britain they were disqualified to serve under severe penalties; thus being deemed by law worthy of trust in one part of the United Kingdom, and unworthy in another. This anomaly it was the object of lord Howick to remedy, by making the provisions of the Irish act general. But on the 5th of March his lordship, in lieu of the proposed clauses, moved to bring in a bill for enabling his majesty to avail himself of the services of all his subjects, in his naval and military forces, on their taking the prescribed oath of allegiance; for to grant this privilege to Catholics and deny it to Protestants, would have been manifestly unjust. It might be thought that a law so salutary and equitable would sufficiently recommend itself by its mere statement; yet the motion of lord Howick was enforced with all the wisdom and eloquence of an accomplished statesman. Mr. Percival, late attorney-general, immediately rose to resist, what he styled one of the most dangerous measures that had ever been submitted to the judgment of the legislature. Our ancient and venerable establishment, he contended, could only be preserved by making a stand against every fresh attempt at innovation, which, if encouraged, would not stop short of abolishing all that the wisdom of our ancestors had thought necessary to enact in defence of our religion. The present question was simply, whether the legislature were prepared to give up the Protestant ascendancy in Ireland? This measure was, indeed, but a part of the principle of innovation which was gradually increasing; and these approaches were far more dangerous than if it were to come forward at once in all its frightful magnitude; and, what might be at first denied by the wisdom of parliament, would be ultimately extorted from its weakness. Such was the nature of the alarm sounded in parliament; and the spirit of bigotry instantly awoke from its slumber, and answered to the call. After an animated debate an early day was fixed for the second reading of the bill. This, however, was twice postponed; and on the 18th of March lord Howick gave notice, that the bill was not intended, under the present circumstances, to be proceeded upon. These circumstances were of a nature so singular, as to require a particular elucidation.

On the 4th of February, a despatch was received from the duke of Bedford, lord-lieutenant of Ireland, stating, that a disposition had been manifested by the Irish Catholics to prosecute their claims by petition to parliament. Desirous to prevent an application so unseasonable, and at the same time to assure the Catholics of their favorable disposition, an answer to the despatch of the lord-lieutenant was prepared by ministers, stating their intention relative to the mutiny bill, a copy of which was transmitted to the king, accompanied by a cabinet minute. To this proposition the king expressed a strong dissent; and, upon receiving his disapproval, the cabinet, on the 10th of February, made a respectful representation of the grounds of policy and principle upon which the measure in question was founded. Lord Sidmouth, who was president of the council, had fairly avowed his readiness to concur in the extension of the Irish act, so far as to legalise the services of the Irish Catholic officers in England, and no further. This he had made known to the king on being questioned by him, acknowledging, that there was no alternative but to repeal the Irish act, or make it operative in England. In consequence of this opinion corroborated by the lord chancellor, who described the measure as merely a corollary from the Irish act, the king replied to the cabinet minute, that, adverting to what had taken place in 1793, he would not prevent his ministers from submitting to the consideration of parliament the proposed clauses in the mutiny bill; but thought it necessary to declare, that he could not go one step farther; and trusted that this reluctance and concession would secure him from being distressed by any future proposal connected with the Catholic question. Under this frail and limited sanction, nevertheless, the majority of the cabinet transmitted a despatch to Ireland, exciting expectations far beyond the letter of the act of 1793, not only by removing the bar to higher military advancement, but extending the provisions of the act to the navy, and imparting the same privileges to English Protestant dissenters.

Lord Sidmouth, on being apprised of the import of the new clauses introduced into the bill, plainly declared the necessity he should feel of opposing the measure in parliament; and, in a cabinet council held on the 1st of March, he stated his conviction, that the extent of it was not understood by the king. Lord Grenville, however, expressing an opposite opinion, it was proposed by lord Howick to transmit to his majesty a copy of the clauses in question, which was done on the following day, accompanied by a despatch to the lord-lieutenant of the same tenor. These documents were returned without comment; but on the 4th of March the king, having previously conferred with lord Sidmouth, declared to lord Howick, at an audience held after the levee, his dislike and disapprobation of the measure, without however, in express words, withdrawing the consent which he had already given. The ministers, therefore, still acted under a delusion, and the obnoxious bill was ordered to be read a second time on the 12th of March.

During this interval lord Sidmouth gave notice of his resolution to resign office, with a view to oppose the bill. But the king refused to accept his resignation; and mentioned in strong terms his surprise at the extent of the proposition made in the house of commons, after his declaration to lord Howick. On the same day lord Grenville was informed by the king, in a manner which could not possibly be mistaken, that to those parts of the bill which went beyond the limits of the act of 1793, he could not be induced to give his consent. Lord Sidmouth therefore prudently advised them to modify the bill, in such a manner as to free it from objections evidently insuperable. And lord Grenville, with the concurrence of his colleagues, respectfully apprised the king of the misconception that had prevailed, and their present purpose to modify the measure, so as to confine it precisely within those limits to which his majesty understood himself to have consented. This intimation was graciously received by the king, who gave the strongest assurances of his conviction, that the intentions of the ministers towards him were perfectly honorable. It was thus hoped that the difficulty was got over, and that ministers would be able to proceed with the bill, modified so as to meet the wishes of all parties; but, most unaccountably, at a subsequent cabinet meeting held on the 15th of March, to which neither the lord chancellor, the lord president, nor the lord chief justice were summoned, a resolution was taken to abandon the measure altogether. Nor was this the only, or the principal indiscretion. A minute was transmitted to the king, who now conceived that an amicable and final explanation had taken place, announcing the relinquishment of the measure; but at the same time asserting their right and intention to avow their opinions in parliament respecting their withdrawment of the bill, and in all future discussions relating to the Catholic question; and also to submit for his majesty's decision, from time to time, such advice respecting Ireland as the course of circumstances and the interests of the empire should require.

This superfluous declaration of rights which had never been controverted, excited in the breast of the king the greatest uneasiness. He began to think that the question was never to be at rest, and that he was to remain perpetually exposed to a recurrence of importunity and anxiety. The royal answer, unadvisedly given, expressed some dissatisfaction at the parliamentary avowals which the ministers supposed to be necessary. It declared, that his majesty would never consent to any farther concessions; and demanded from ministers a positive and written assurance, that he should never again be distressed by a recurrence to this subject. With regard to a demand of this nature, there could be no hesitation; and it was in dutiful terms represented to the king, that those who were entrusted by him with the administration of the affairs of his extensive empire, were bound by by every obligation to submit, without reserve, the best advice they could frame to meet the exigencies of the times; and that the situation of of Ireland constituted the most formidable part of the present difficulties.

On the day succeeding this communication his majesty, with the most gracious expressions of his satisfaction in regard to every other part of their conduct, announced his intention of making a change of ministers; and on the 18th of March lord Howick was authorised to notify this intention to parliament. On the 25th of March his majesty's pleasure was signified, that the members of the present administration should deliver up their seals of office.

Before the end of March a new administration was formed. At the head of the treasury, after an interval of more than twenty years, was for the second time placed the duke of Portland, now from age and infirmity regarded as a cypher in office, the efficient power residing in Mr. Percival as chancellor of the exchequer. Lord Eldon resumed the great seal; the earl of Westmoreland the privy-seal; the earl of Camden was made president of the council; lord Mulgrave was appointed first lord of the admiralty; the earl of Chatham master of the ordnance; lords Castlereagh, Hawkesbury, and Mr. Canning, were the secretaries for the war, home, and foreign departments: Mr. Robert Dundas presided at the India board; Mr. George Rose was made treasurer of the navy; Sir James Pulteney secretary at war; Sir Vicary Gibbs, and Sir Thomas Plumer, attorney and solicitor-generals, and the duke of Richmond succeeded the duke of Bedford in the government of Ireland.

Both houses were at first adjourned to the 8th of April, when lords Grenville and Howick entered into ample explanations respecting the causes of the late change in administration; and Mr. Brand, member for the county of Herts, moved, 'That it was contrary to the first duties of the confidential servants of the crown to restrain themselves, by any pledge, express or implied, from offering to the king any advice that the course of circumstances may render necessary for the welfare and security of any part of his extensive empire.' Mr. Percival freely admitted the proposition as true in the abstract, but contended that it must be taken in conjunction with circumstances. Mr. Canning declared, that this was the first instance since the time of king Charles I. that a sovereign had been judged at the bar of that house. The house at length divided, on the motion of Mr. Osborne for the order of the day; in favor of which the numbers were 258 against 222 voices.

Two days after Mr. Lyttleton moved a resolution in the house of commons, at the close of a short and able speech, 'That this house considering a firm and efficient administration as necessary at the present crisis, feels deep regret at the late change in his majesty's councils. But the first division was decisive; and after a vehement debate the order of the day was carried by 244 against 198 voices.

In these contentions the prince of Wales did not appear to take any interest; since the decease of Mr. Fox, indeed, his communications with the late ministers were believed to be much less frequent and cordial. The marriage of this great personage had, from causes imperfectly developed, proved very unhappy; and an early separation had followed what was at the time regarded as a forced and reluctant union. The subsequent conduct of the princess was far from being so discreet and guarded as was requisite, under circumstances which required on her part more than ordinary prudence. In consequence of representations made to his royal highness, and by him to the king, a committee of council was appointed to investigate the charges against her, consisting of the law lords, Erskine and Ellenborough, with other distinguished peers. Their report acquitted the princess of serious culpability, though it admitted, as the evidence subjoined but too plainly proved, that her conduct was liable to the imputation of levity and indiscretion.

On the 27th of April 1807 the parliament was prorogued by commission, and dissolved on the 29th. It was not surprising that, on the general election which succeeded the dissolution of parliament, the cry of 'no Popery,' and 'the danger of the church,' was made use of for political purposes, and was found capable of inflaming the minds of the multitude.

It will be necessary now to revert back a little in our narrative, for the purpose of noticing some very important military and naval occurrences which took place during the year 1807, and in which England bore a conspicuous part.

The emperor of Russia having refused to ratify the treaty of D'Oubril, general Sebastiani was sent to Constantinople with a commission from the French government, to induce the Sublime Porte to declare war against Russia; in consequence of which an edict was issued prohibiting Russian ships of war the passage of the Dardanelles: when the British squadron, under Sir John Duckworth, received orders to force that passage, which he accomplished, and presented himself in hostile array before Constantinople. On the 20th of February one of the Turkish ministers came on board, professing an earnest desire on the part of the sultan of giving satisfaction; but the demand of the British admiral was no less than the delivery of all the ships of war belonging to the Porte. The negociation continued till the 27th, and this interval was diligently employed by the Turks, under the direction of French engineers, in erecting batteries on both sides of the long and narrow strait. The English admiral, now finding himself out-manœuvred even by Turkish artifice, thought only of retreat; and weighing anchor on the 1st of March he succeeded in forcing his passage through the straits, though not without incurring the most imminent peril. The castles of Sestos and Abydos, saluted him with the fire of vast blocks of marble, one of which, weighing 800 lbs., cut in two the main-mast of the Windsor man of war. The only effect produced by this attempt was to confirm the influence of France at the Porte.

But another attempt on the Ottoman power was more successful. On the 5th of March a force of about 5000 men was sent from Messina, under the command of general Fraser, of which, on the 16th a part anchored to the westward of Alexandria; and the troops having taken possession of the castle of Aboukir, and the cut between lakes Maadie and Mareotis, Alexandria capitulated on the 20th.

On the 27th general Fraser detached a body of 1500 men to take possession of Rosetta; but their commander incautiously marching into the town, without previous examination, the troops received so brisk a fire from the roofs and windows, that, after the loss of 300 killed and wounded, they found it necessary to retreat to Aboukir. Another corps of about 2500, under general Stewart, was now sent to erect batteries against the place; and, as a succour of Mamelukes was expected by the British, lieutenant-colonel Macleod was detached to seize a post in order to facilitate their junction. Many days passed in fruitless expectation; at length a great number of vessels were descried sailing down the Nile, which were not doubted to contain a reinforcement to the enemy from Cairo. Orders were immediately sent to colonel Macleod to return from his position; but they were unfortunately intercepted, and his detachment was cut off. General Stewart retreated, fighting all the way, to Alexandria; and this attempt on Rosetta cost 1000 men in killed, wounded, and missing. A formidable force of the enemy now approaching Alexandria, the inhabitants of which were also disaffected, a flag of truce was sent by general Fraser, offering immediately to quit Egypt with his army on condition that the British prisoners should be liberated, which was readily agreed to, and on the 23d of September the troops sailed for Sicily.

Reinforcements, under the command of general Sir Samuel Achmuty and admiral Stirling, having landed in the month of January near Monte Video, the general resolved to make an attempt on that place; and on January the 18th commenced the siege. The works were found strong, and were ably defended; but, a practicable breach being made on the 2d of February, it was resolved no longer to delay an assault. This was effected before day break on the next morning; and after a severe action, in which 560 of the assailants were killed or wounded, and more than double that number of the defenders, every thing was carried except the citadel, which soon after surrendered. The general, in his despatches mentions a circumstance highly to the credit of his troops, as well as of their commander, that 'early in the morning the town was quiet, and the women were peaceably walking the streets.' The prizes captured here were fifty-seven West Indiamen and merchantmen, besides several gun-boats and armed vessels.

About this time the ministry resolved to send out an expedition for the reduction of the whole province of Chili. For this purpose a force of 4200 men was placed under the command of brigadier-general Crawford, which sailed in the end of October 1806, accompanied by a naval force under admiral Murray. Intelligence of the re-capture of Buenos Ayres, however, having been received, an order was afterwards despatched for the expedition to change its object, and proceed to the river La Plata.

General Whitelocke had in the mean time been nominated to the supreme command of the forces in South America, and, leaving England in March, took with him an additional force of 1630 men, making the British in that quarter amount to 11,000 rank and file; the object now intended being the reduction of the whole province of Buenos Ayres.

On the 28th of June the united force, to the number of 1800 men, was landed about thirty miles to the eastward of Buenos Ayres; and, after a fatiguing march, the different divisions assembled in the suburbs. On the morning of July 5th a general attack was ordered, each corps to enter by the streets opposite to it, and all with unloaded muskets. The greatest intrepidity was displayed in the attempt to execute this plan, which was so far successful that two strong posts were gained in the town, but at the expense of 2500 men in killed, wounded, and prisoners; the fire from the tops of the houses, and every advantageous position, upon the exposed and defenceless troops, having been most murderous.

On the following morning general Linieres sent a letter to the English commander, offering to give up all the prisoners taken in this bloody rencounter, and also all those made with general Beresford, if he would desist from any further attack, and withdraw the British armament from La Plata; intimating, that such was the exasperation of the populace, he could not answer for the safety of the prisoners if offensive operations were persisted in. Whitelocke, influenced, as he said, by this consideration, and reflecting on the little advantage to be obtained from the possession of a country absolutely hostile, agreed to the proposal. On his return home he was tried by a court-martial, whose sentence was, 'that he be cashiered, and declared totally unfit and unworthy to serve his majesty in any military capacity whatever.' In balance of these disasters, the Dutch island of Curaçoa was early in the year 1807 reduced by a small squadron under the command of captain Brisbane.

The new parliament assembled on the 22d of June 1807. The address from the throne was viewed in the light of a manifesto against a party in the state, and it therefore was not to be expected that it should pass without animadversion. Accordingly, in the house of lords, lord Fortescue moved an amendment, strongly censuring the measure of the dissolution of parliament, and the reasons which the new ministers had offered for its justification, which upon a division was rejected by a majority of 160 to sixty-seven. A similar amendment, moved in the house of commons by lord Howick, was negatived by 350 to 155; and a subsequent motion of enquiry into the state of the nation was negatived by 322 to 136 voices. In consequence of the distracted state of Ireland, bills were now moved for by Sir Arthur Wellesley, secretary to the lord-lieutenant, for the suppression of insurrection in that country, and to prevent the disturbance of the peace. Their necessity was admitted by Mr. Grattan. Lord Castlereagh at this time brought forward in the commons a new military plan, the object of which was to augment the regular army from the militia, and to supply the deficiencies accruing to the latter by a supplementary militia. A bill sent up from the lower house, against granting reversions of offices, was, on a division of fifteen peers to nine, ordered to be read a second time that day three months. This,

however, was accompanied by a strong protest. On the 14th of August the parliament was prorogued by commission.

In the course of the summer an affair arose, which occasioned a painful misunderstanding between Great Britain and the United States of America. The Chesapeake, American frigate of forty-four guns, being known to have several English deserters on board, representations of the fact were made to the American secretary, to which no satisfactory answer was given. Captain Humphreys, in the Leopard, was therefore ordered to search the American vessels for deserters, a liberty which was to be reciprocal. Having, on the 28th of June, come up with the Chesapeake, he sent a boat with advice of the information which he had received concerning the deserters, and of his orders to search the ship. This being refused by commodore Barron, the British commander fired several shots, to which no attention was paid: he then fired a broadside into the Chesapeake, which she returned by some scattered shot, and, on receiving a second broadside, immediately struck her colors. On examining the American frigate the deserters were found; but in the rencounter the Chesapeake had six men killed and twenty-one wounded: with the latter she returned to port in a very shattered state, and a proclamation was issued by the president, Mr. Jefferson, prohibiting all intercourse between the American states and the armed vessels of Great Britain. A negociation was now long carried on between the two countries; but the disputes were revived by circumstances hereafter to be mentioned.

From the conclusion of the treaty of Tilsit it became evident, that Denmark could not long maintain her neutrality; and the British ministry had strong suspicions, or rather positive assurance, that a naval force now augmenting in the ports of that country was to be directed against England. In every view of the subject it was thought expedient, in order to prevent the Danish fleet from falling into the hands of the French government, to request from the court of Denmark the temporary deposit of the Danish ships of the line in some of the British ports. This proposal was made in a friendly manner, representing the indispensable necessity of the measure, under the relative circumstances of the powers of Europe.

To give weight to the application a naval and military force, under admiral Gambier and lord Cathcart, was sent to the Baltic, with the view of protecting Denmark against the resentment of France in case of an amicable result, or to enforce compliance should her government reject the proposal. But the Danish cabinet refused all terms of accommodation: and all the preparations being completed, on the 1st of September the city was summoned, and the offers renewed which at different times had been made to the crown-prince and the governor. This producing no effect, the bombardment both from the land batteries and the shipping commenced on the following day, and continued till the evening of the 5th, when a proposal for capitulating was made by the garrison. On the following day the Danish navy was agreed to be delivered up to our force. It consisted of eighteen ships of the line; one of ninety-six, two of eighty-four, twelve of seventy-four, and three of sixty-four guns; fifteen frigates, five brigs, and twenty-five gun-boats; a force which, in the hands of the emperor of the French, might have proved a means of great annoyance to Great Britain. The capitulation, however, was not ratified by the crown-prince; and the Danish government, rejecting every conciliatory proposal, issued a formal declaration of war against England. Notwithstanding, however, these demonstrations of hostility, the occupation of Zealand requiring a greater number of troops than Great Britain could spare from other services, the country was evacuated according to the convention; and from that period the war with Denmark produced no important events. The peace of Tilsit having freed the French emperor from all apprehensions in the north, his armies entered Spain, with threats of invading Portugal, the autumn of this year, and so far intimidated the court of Lisbon that a decree for shutting the ports of that kingdom against the ships and commerce of Great Britain was issued 22d of October, 1807.

In consequence of these proceedings his Britannic majesty deemed it expedient to send a squadron to the mouth of the Tagus, to act as circumstances might render necessary: when the appearance of a French army on the frontier of Portugal induced the prince regent to sign an order for the detention of all British subjects, and the sequestration of British property. This decree bears date November 8th, 1807; but the event had been foreseen, and most of the British subjects had previously removed their effects. Such measures, however, although the effect of compulsion, placed England and Portugal virtually in a state of hostility. Lord Strangford, the British ambassador, demanded his passports; presented a final remonstrance against the conduct of the court of Lisbon; and, proceeding to the squadron of Sir Sidney Smith, a rigorous blockade was established at the mouth of the Tagus. Still the rapacity of the French emperor could not be satisfied. He declared, 'that the house of Braganza should cease to reign;' and the French army had entered Portugal, when lord Strangford, having received fresh instructions, returned on the 27th of November to Lisbon to renew negociations. The issue was that, after receiving the most positive assurances of protection from the British navy, his royal highness the prince regent came to the resolution of removing the royal family and the seat of government to Brasil, and the embarkation was so expeditiously performed, that on the morning of the 29th the Portuguese fleet sailed out of the Tagus, having on board the prince, with the whole of the royal family, together with a number of persons attached to its fortunes. The French troops arrived in the vicinity of Lisbon, just in time to gain from the hills a view of the fleet as it dropped down the river. Sir Sidney Smith, with a British squadron, accompanied the royal emigrants to Rio de Janeiro.

In the commencement of 1808 Austria,

hitherto the principal ally of Great Britain, having vainly offered her mediation between Great Britain and France, went over to the ranks of the latter. The month of February of this year was also memorable for the subversion of the temporal power of the pope. The city of Rome was seized by the French, and, together with the whole of the ecclesiastical states, incorporated with the kingdom of Italy.

The king of Sweden, engaged in a war against Russia, Denmark, and France, magnanimously prepared to repel the dangers with which he was menaced by so powerful a combination. In his efforts he was seconded by the loyalty and zeal of his subjects; and rarely had any nation afforded a more striking display of patriotic enthusiasm. But, as the resources of his kingdom were inadequate to the contest, the British government granted to his Swedish majesty a subsidy of £100,000 per month, and sent a squadron to the Baltic with 10,000 land forces on board, under general Moore, to co-operate as circumstances should require.

The imbecile court of Spain was at this time fast hastening to that state of internal dissension and degradation, which soon after occasioned the deposition of the royal family. On the 30th of October 1807 an extraordinary decree or manifesto was issued by the king of Spain, acquainting his subjects that his life and crown had been brought into danger by a conspiracy, of which his son was the author, whom, in consequence, he had caused to be arrested. The foundation of this charge was a clandestine correspondence carried on by the prince of Asturias with the French emperor. Through the interposition of the prince of Peace, Godoy, a reconciliation was effected; the prince of Asturias having been induced to write penitential letters to his father and mother. A treaty was soon afterwards concluded between the sovereigns of France and Spain, the object of which was a partition of the kingdom of Portugal; but, in return for the portion which was to devolve on the king of Etruria, his kingdom of Tuscany was to be ceded to Napoleon in quality of king of Italy. By a secret convention, French troops were to be admitted into Spain, and others were to be assembled at Bayonne, to assist in the conquest of Portugal. Thus a handle was given for placing Spain at the disposal of the emperor of France.

The attention of all Europe was at this time turned towards the Peninsula. A perfect harmony seemed to reign between the French and Spanish cabinets; and the popular reports of the approaching annexation of Portugal and Gibraltar to Spain, were well calculated to allay the suspicions which the entrance of the French armies must naturally have tended to excite among the people. But it appears that his Catholic majesty had formed the design of removing the seat of government to Mexico. The motives which led to this project are enveloped in mystery; as are indeed all the affairs of the court of Madrid, from the period of the alleged conspiracy of the prince of Asturias, till the journey of the royal family to Bayonne. It seems, however, that the design of emigrating beyond the Atlantic had originated with the prince of Peace, whose views in this affair are not fully ascertained.

No sooner had the intended emigration of the royal family been hinted, than the Spanish capital presented a scene of confusion and turbulence; and the inhabitants of Madrid rushed in crowds to the road near the palace to prevent their departure. At the same time several of the ministers and grandees, who disapproved of the emigration, circulated hand-bills in the surrounding country, stating the designs of the court. The night of the 17th of March was a scene of tumult, and on the following day immense crowds of people hurried to Aranjuez. The palace of the prince of Peace was forcibly opened, and his brother, Don Diego Godoy, commandant of the life-guards arrested. On the 19th of March issued a royal decree by which Charles IV. abdicated the throne of Spain in favor of his son, the prince of Asturias; one of the first acts of whose sovereignty was the confiscation of the estates and property of Godoy, who had been discovered and made prisoner in the place of his concealment. These events, however, were soon succeeded by a counter-revolution. The duke of Berg, with the French army, had entered Madrid, and was in full possession of that capital; when the two kings of Spain, Charles IV. and Ferdinand VII. formerly prince of Asturias, with the whole of the royal family, and some of the principal grandees, were allured by various pretexts to Bayonne, to meet the French emperor. Ferdinand declared, that the circumstances in which he assumed the reins of government dictated the propriety of the measure. Unfortunately, however, this proved eventually to be the most imprudent step he could have taken. It was followed by terrible commotions throughout the country, and in Madrid, in particular, the most dreadful disorders prevailed. The French were insulted daily; numerous assemblies were held by the populace; and every thing indicated a dreadful explosion. At length, on the 2d of May, a general insurrection took place. The grand duke of Berg, commander-in-chief of the French armies in Spain, in coming from the palace, was surrounded by the populace, and, after defending himself for some time, was on the point of falling when he was rescued by his grenadiers. The street of Alcala, and the great square, were crowded with insurgents. The grand duke flew to his post, and a battalion of the French, with some cannon, repaired to the palace. Vollies of grape-shot, and charges of cavalry, cleared the streets and the square; but, the insurgents continuing to fire from the houses, generals Daubrin and Guillot, with their divisions, broke open the doors, and all who were found in arms were put to the sword. A body of the insurgents, in the meanwhile, pushed forward to the arsenal, and had already broke in, when general Lafraen just arrived in time to save the arms and ammunition. The loss sustained on each side was variously represented: but there can be no doubt of its having been very considerable. In consequence of these disorders, the grand duke of Berg was

constituted lieutenant general of the kingdom. At last, on the 25th of May, an imperial decree was issued, declaring the throne of Spain vacant by the abdication of the reigning family, and ordering an assembly of notables, consisting of the prelates, grandees, &c., to be held at Bayonne, for the purpose of fixing the basis of a new government. This was communicated to the council of Castile, by the duke of Berg; and a commission was established for secularising the lands of the church. A spirit of discontent had long pervaded the kingdom; but now the public exasperation was indescribable. Except the partisans of France, few Spaniards attended the junta at Bayonne. The consummation of the whole plan, however, proceeded: it was that the French emperor, on the 6th of June, conferred the crown of Spain on his brother, Joseph Buonaparte, who abdicated his kingdom of Naples in favor of the grand-duke of Berg, otherwise Joachim Murat, who had married the sister of Napoleon. The news of these renunciations was the signal for a general insurrection in Spain. The patriotic flame burst forth in Asturia; whence it spread into Gallicia, and into several districts of Leon. An assembly, convened at Oviedo, published a formal declaration of war against the French government; and, having appointed the marquis of Santa Cruz generalissimo of the patriotic army, sent deputies to request the assistance of England. This request was immediately acceded to; and on the 4th of July his majesty issued a proclamation, declaring that Great Britain was at peace with the Spanish nation. In every quarter of Spain the inhabitants now flew to arms. The council of Seville proclaimed Ferdinand VII.; and published an appeal to the Spanish nation. Provincial assemblies were formed in most of the principal towns, and depôts established in the most suitable situations. In Andalusia above 15,000 regular troops were collected; arms were put into the hands of 60,000 peasants; and general Castanos was appointed commander-in-chief. The French general Dupont, with about 20,000 men, was at this time sent to secure a position at Cordova, whence he might readily move upon Seville, Carthagena, or Cadiz. Moncey, with upwards of 12,000 men, was detached to the provinces of Valentia and Murcia. Le Febre, with about 18,000, was stationed in Arragon, for the purpose of obtaining possession of Saragossa, and keeping open the communication with Barcelona: and the French army in the north-western parts, consisting of between 40,000 and 50,000 men, commanded by marshal Bessieres, who had his principal station at Burgos.

The city of Cadiz was among the first to show its zeal for the patriotic cause. The French squadron, consisting of five ships of the line and one frigate, lying in the harbour, was obliged to surrender, on the 14th of June, to the Spanish arms. This was followed by the defeat and almost total destruction of the French army near Almanza. General Moncey, having assaulted the city of Valencia, was repulsed with an almost incredible slaughter. Saragossa vied with Valencia in patriotic enthusiasm. On the 1st of July, about midnight, the French made a vigorous attack on the latter, but the courageous conduct of the brave general Palafox, who commanded, with the valor of the troops and armed inhabitants, completely baffled their efforts. Several succeeding attempts were equally ineffectual; and the enemy is said to have lost no fewer than 12,000 men in their various attacks. But the most important transaction took place in the province of Andalusia. The French general Dupont took a strong position on the heights of Andujar, near the banks of the Guadalquiver; when general Castanos, at the head of the Andalusian patriots immediately advanced upon him; and having received intelligence that a detachment of 8000 French, from the head-quarters at Madrid, was already on its march to Andujar, resolved to attack Dupont before he could receive this reinforcement. An obstinate and bloody action ensued; but the patriots at length prevailed, and their victory was decisive. The French general, in order to save the remains of his army from total destruction, on the 20th of July surrendered himself and his troops prisoners of war. The detachment that was on the way to join him was included in the capitulation, but with this difference, that they should not be considered as prisoners, but be conveyed by sea to France. This victory was of incalculable importance to the patriotic cause.

While these events were transpiring in the provinces, Joseph Buonaparte was preparing to take possession of his kingdom, and, by a very singular coincidence, made his public entrance into his capital on the 20th of July, the identical day that was signalised by the defeat and surrender of Dupont. The splendid illusion, however, was not of long duration. After a short stay of seven days, on the 27th of July he began his retreat from Madrid towards France, while the patriots advanced and took possession of the capital. The French now began to retreat from the different provinces towards Vittoria; and concentrated the remainder of their forces on the banks of the Ebro.

About the middle of August an event took place which brought to the patriotic cause a considerable accession of strength. Several bodies of Spanish troops had been furnished by the court of Madrid as auxiliaries to the French emperor: of these 8000 were stationed in the Danish island of Funen, and 2000 in that of Langeland. A negociation being entered into between their commander, the marquis del Romana, and admiral Keats, then commanding a British squadron in the North Seas, in order to effect their liberation, the Spaniards in Funen seized the vessels and small craft, the Danish troops in that island being inadequate to oppose them, and conveyed themselves to Langeland, where their countrymen had seized the battery at the mouth of the harbour. By this excellent manœuvre 10,000 Spanish troops were rescued from the power of Buonaparte, and conveyed by the British ships to Spain, where they joined their brethren in arms in maintaining the cause of their country.

The patriotic spirit was now communicated to Portugal. A general insurrection took place in

the provinces of Tras los Montes and Entre Douro e Minho, which rapidly spread throughout the whole kingdom. After some severe contests, the French under general Loison were driven out of Oporto, and nearly cut off in their retreat towards Lisbon. The clergy, and particularly the monks of Oporto, distinguished themselves by their courage and patriotism; and partly by their exhortations, and partly by their example, encouraged the people to take up arms against their invaders, the plunderers of their churches, and the oppressors of their country. The result was, that the French were expelled from Coimbra and several other places, and general Junot was obliged to concentrate his troops in and about Lisbon. About the end of July a force of 14,000 men, under the command of Sir Arthur Wellesley, was despatched to Portugal: and, having effected a landing, at once commenced operations. The French general Laborde was posted on the heights near Roleia; and as there was reason to apprehend he might be joined by general Loison, who was then at Rio Major, the British general resolved to attack his position. The army advanced from Caldas in three columns, the right being composed of the Portuguese, and the two others of British troops, led on by major-generals Ferguson and Hill, and brigadier-generals Nightingale, Crauford, and Fane. The enemy's positions were formidable, and defended with great bravery and skill; but the attack made by the British columns proved irresistible. After an obstinate engagement the French were compelled to retire with the loss of a considerable number of men, and three pieces of cannon. The loss of the English was 479 killed, wounded, and missing. Lieutenant-colonel Lake fell gallantly in the heat of the action. In the course of the succeeding night the French generals Loison and Laborde effected a junction at Torres Vedras and both began their march towards Lisbon. The British army was also reinforced by a body of troops commanded by brigadier-general Anstruther, being part of a force sent from England under brigadier-general Ackland.

The moment was now approaching which was to decide the fate of the French army in Portugal, and of the Russian fleet in the Tagus. Junot, on whom the emperor of France had conferred the title of duc d'Abrantes, having collected all his detachments, attacked the British army on the 21st of August, in its strong position at the village of Vimiera. The attack was made in several columns, and with great impetuosity, till the French were driven back by the bayonet; and, being at the same time annoyed on their flank by a cannonade from the artillery placed on the heights, they were obliged, after a severe contest, to retire in confusion. At length the enemy, being every where repulsed, were obliged to retire with the loss of about 3500 men killed, wounded, and prisoners, thirteen pieces of cannon, and twenty-three tumbrils of ammunition. One French general, Beniere, was taken prisoner, and another, supposed to be general Thebauld, was found dead on the field of battle. The loss of the English, as stated in the returns, was 740 men killed, wounded, and missing, in which were included many valuable officers.

On the day after the battle of Vimiera, general Dalrymple landed, and took the chief command of the army. On the 30th of August a cessation of hostilies was agreed on, and eight days afterwards a definitive convention signed by the French and British commanders. By this treaty the French were to carry off all their arms, ammunition, artillery, carriages, and horses, with their military chest, and all the plunder acquired by contributions, and to be conveyed to France in British vessels, without any restrictions in regard to future service. The Portuguese artillery, &c., with the military and naval arsenals, were to be surrendered to the British army and navy. No Portuguese was to be molested on account of the part which he had taken with the French invaders; and the British commanders engaged to prevail on the Spaniards to release all the French who were arrested in Spain, and were not bonâ fide military men. The Russian fleet in the Tagus, consisting of nine ships of the line and a frigate, surrendered to the British government as a deposit, to be given up six months after the conclusion of a peace; but the officers and seamen, above 5600 in number, were to be immediately carried to Russia.

The reasons assigned by our commanders for consenting to this extraordinary convention were, the apprehended difficulty of obtaining provisions, the importance of time, and the means which the enemy had of protracting his defence. These, however, were far from being satisfactory either to the British or Portuguese nation. A court of enquiry was instituted, but on a minute investigation of the case, nothing appeared that had a tendency to criminate any of the generals. It is requisite to observe, that the convention of Cintra probably saved the city of Lisbon.

While the public attention was directed towards the affairs of Portugal and Spain, an abortive effort at negociation was made by the emperor of France. As a basis, it required the exclusion of the supreme government of Spain acting in the name of Ferdinand VII. from the negociation. But his Britannic majesty totally reprobated this idea, and, when a few notes had passed, the negociation broke off, as might have been expected.

The British army now commenced its march for Spain, under the command of Sir John Moore. Sir David Baird had, on the 13th of October, landed a strong body of troops at Corunna, and, after many delays and innumerable difficulties, on the 19th of November arrived at Astorga. In the mean while the emperor of France personally entered Spain, and the patriotic armies under generals Belvidere, Blake, and Castanos, being successively defeated at Burgos, Espinosa, and Tudela, the French army forced the pass of Somma Sierra: on the 2d of December it advanced to Madrid, which it entered on the 4th.

The French emperor having settled the affairs of the capital, hastened to endeavour to cut off the retreat of the English army. He himself departed from Madrid on the 18th of December,

with an army of 32,000 infantry, and 8000 cavalry.

In the mean time, the British general meditated a junction with the marquis Romana, with the view of making an attack on the duke of Dalmatia. He therefore marched to Majorga, where he was joined by general Baird with the troops from Corunna. The whole British army, which was now found to consist of 23,000 infantry and upwards of 2000 cavalry, besides some small detachments, advanced to Sahagan. But general Moore was no sooner arrived at his station than he received intelligence of the movements of the enemy; and judging it impossible to make an effectual resistance against the formidable force that was coming against him, on the 24th of December commenced a precipitate retreat through Gallicia. Napoleon made forced marches after him as far as Astorga; but, finding that his prey had eluded his grasp, he resigned the further operations into the hands of the dukes of Dalmatia and Abrantes.

The disasters of this retreat of the British army were great: great numbers of men, unable to keep up with the rest, were left on the line of march; many of their horses were also left behind; and no fewer than 1400 were killed to prevent them from falling into the hands of the enemy. General Anstruther died through excessive fatigue. The valor and perseverance of the troops were never more conspicuous than on this occasion. At length, after fourteen days of precipitate and harassing marches, the army reached Corunna on the 11th of January, 1809; and had the transports been ready, might have embarked without further loss. But these had been sent to Vigo; and it was not till the 13th that the first division of transports arrived. We have described the memorable battle that took place on the 16th in our article CORUNNA.

The expedition to Denmark was the leading topic of debate in both houses, when parliament met 31st of January, 1808. Mr. Ponsonby proposed to take a view of the subject in three distinct relations of Denmark, Russia, and France, and moved for certain documents to be laid before the house, but the motion was negatived by 253 votes against 108. It was, however admitted, that there was no evidence of the hostile intention of Denmark towards Great Britain before the aggression; and all that the ministers of the crown labored to establish on that head was, that it was probable, from past experience, that Denmark would be induced by inclination, or compelled by force, to join the enemy.

Lord Sidmouth moved for an address to the king, praying that the Danish fleet might be kept in such a state as not to preclude the possibility of restoring it, should circumstances occur under which it might be expedient so to do. This was powerfully supported by lord Grenville. It was, however, negatived by 105 votes to fifty-one. The orders in council, which had been issued subsequently to Napoleon's decree of blockade, also occupied the attention of both houses. A great variety of argument with respect to the policy of these measures was employed on each side, during the debates on a bill brought in by the chancellor of the exchequer for making these orders valid; but, on the 25th of March, the bill finally passed both houses. It was accompanied by a bill for commercial intercourse with America, which was intended to afford time for making arrangements with that country.

At this period of the session lord Folkestone introduced his attack on the marquis Wellesley, respecting his transactions with the nabob of Oude. The marquis was defended in an elaborate reply by Sir John Anstruther, who had held a high judicial office in India. After a long and interesting debate the previous question was put on all the resolutions except the last; in lieu of which Sir John Anstruther moved, that 'the marquis Wellesley, in his proceedings in the province of Oude, was actuated by an ardent zeal for the public service, and by an anxious desire to provide more effectually for the safety and prosperity of the British empire in India.' This was carried by 180 to twenty-nine voices.

On the 11th of April Mr. Percival brought forward his project of finance for the year. The war taxes he estimated at £20,000,000, and he proposed a loan of £8,000,000 in addition to £4,000,000 already funded of exchequer bills. Additional taxes were also voted to the amount of £300,000. The supplies required were £43,000,000 for England, and £5,500,000 for Ireland. A new financial plan, introduced by him, was that of enabling the holders of three per cent. stock to transfer their stock to the commissioners for the reduction of the national debt, and to receive equivalent annuities in its stead.

The house of commons, having on the 8th of March gone into a committee on the mutiny bill, the introduction of a bill for establishing a local militia of 200,000 men was also introduced by lord Castlereagh in April, and passed into a law. The men were to be trained for twenty-eight days annually. On the 4th of July parliament was prorogued by commission.

On the continent of Europe during this year (1808) the emperor of France, before he set out for Spain, had an interview with the emperor of Russia, over whose mind he flattered himself that he had acquired a lasting ascendancy. The meeting took place at Erfurt on the 27th of September, each sovereign being accompanied by a numerous and splendid suite. As it was the obvious purpose of Napoleon to place matters upon such footing that he could withdraw his troops from Germany, and employ them in the Peninsula, he rendered the Russian monarch the mediator of a negociation, by which he engaged to evacuate the Prussian territory as soon as the contributions should be paid, which he reduced to one-third of their amount; and he wrote, with his own hand, an obliging letter to the queen of Prussia. The only other part of Europe in which war-like operations were carrying on this year was Sweden.

The Russians in the month of March took possession of Abo, the capital of Finland, and declared its annexation to the Russian empire; on which the king of Sweden suddenly abandoned the farther defence of that province, and undertook the invasion of Norway. Sir John

Moore having proceeded to Stockholm to concert measures of co-operation with the Swedish troops, and refusing to concur in some of the king's extravagant plans, the monarch's resentment was so much excited that he was obliged to escape in disguise, and brought back his troops amounting to 10,000 men, without landing them.

The Russians now directed their force against the fortress of Sweaborg, the Gibraltar of the north; and so feeble was the defence that was made of it, that it induced a suspicion of treachery. They also made descents on the islands of Gothland and Aland. An engagement between the flotillas of the two powers ended to the disadvantage of the Swedes. In Finland an armistice was concluded on the 27th of September, which consigned the greatest part of the province to the possession of Russia.

The naval occurrences of the year 1808 were not of much importance; but in such as occurred the British ships maintained their usual maritime superiority.

An extraordinary instance of the naval inferiority of the Turks was shown by an engagement in the Archipelago on the 5th of July. The Seahorse English frigate descrying, off the island of Scopelo, a Turkish ship of fifty-two guns, a corvette of twenty-four guns, and a galley, by dint of manœuvering brought the corvette first to action, and in a short time reduced her to a wreck. She then engaged in close fight with the large ship, and after an obstinate resistance compelled her to strike, with the loss of 360 men killed and wounded, that of the Seahorse being only five killed and ten wounded.

Mr. Rose, who had been sent to the United States for the purpose of restoring the relations of amity between the two countries, returned without success.

In the month of August this year arrived in England Louis XVIII., nominal king of France, with the queen and the daughter of the late king, married to the duke d'Angouleme; but only acknowledged here under the title of the count de Lisle. A liberal provision was, nevertheless, made for himself and his household; and in the delightful seclusion of Hartwell, near Aylesbury, he passed almost the only tranquil and peaceful years he had known.

The British parliament was convened on the 19th of January, 1809. The speech adverted to the late overture for peace; in relation to which his majesty expressed his persuasion, that the two houses would participate in the feelings expressed in his declaration. He informed them that his engagements with Spain were reduced into the form of a treaty of alliance. The peculiar claim of the king of Sweden to his majesty's support was also insisted on; but the debates on the affairs of Portugal and Spain took the precedence in point of interest. Earls St. Vincent, Grenville, and Moira, reprobated the idea of sending an army to Portugal when Spain was at stake. In the commons, Mr. Ponsonby adopted the same train of reasoning; but they were ably answered by lords Hawkesbury and Castlereagh, and by Mr. secretary Canning. Lord Hawkesbury declared, that the sending of a British force to Portugal, in preference to Spain, was a measure adopted in compliance with the representations of the Spanish juntas. Mr. Canning endeavoured to justify the principles on which his majesty's ministers had acted, by developing the state of Spain at the commencement of the grand insurrection. 'When the whole Spanish nation,' said he, 'rose unanimously, and with a concert almost miraculous, the consequence was, the sudden creation of various local authorities, acknowledging no head; jealous, watchful, and extremely suspicious of any attempt on the part of one to obtain ascendancy over the others.' The supreme central junta was not erected till the last week in September. To these circumstances Mr. Canning ascribed the direction of the expedition, and the delay of the advance of the British army.

No inconsiderable portion of the present session was occupied in an extraordinary investigation of the conduct of the duke of York. So early as the 27th of January, colonel Wardle, an officer of militia, asserted the existence of a system of abuses in the military promotions. The substance of the charge was, that an intriguing female, Mary Anne Clarke, who during several years had been a favorite with his royal highness, but then discarded, had carried on a traffic in commissions, not only with the knowledge, but also the participation of the duke. After various observations had been offered by different members, the chancellor of the exchequer proposed that the enquiry should take place in a committee of the whole house, in which it appeared that the duke's knowledge of her transactions, and participation in her gains, were circumstances, the proof of which depended chiefly on the testimony of Mrs Clarke herself.

On the 23rd of February his royal highness addressed a letter to the speaker of the house of commons, in which he not only denied all personal participation, but the slightest knowledge of these abuses. 'But,' added his royal highness, 'if upon such evidence as has been adduced against me, the house of commons can think my innocence questionable, I claim of their justice that I shall not be condemned without trial, nor be deprived of the benefit and protection which is afforded to every British subject, by those sanctions under which alone evidence is received in the ordinary administration of the law.'

It now became necessary to put an end to the present anomalous proceedings, or to frame regular articles of impeachment. With a view to the first alternative, Mr. Percival on the 17th of March moved a resolution, 'that the house having examined the evidence, and having found that personal corruption, and connivance at corruption, had been imputed to the duke of York, were of opinion that the imputation was wholly unfounded.' This was carried by 278 against 196 voices. His royal highness, however, found it expedient to resign his high office, which was transferred to Sir David Dundas.

During this ferment of the public mind, a charge of corruption was also brought against lord Castlereagh. While that nobleman presided at the India board he had been complimented with the disposal of a writership, and,

desirous of a seat in parliament for a friend, he was recommended to a 'trafficking broker,' who pretended to be able to obtain one in exchange. With this man lord Castlereagh imprudently assented to an interview, but the treaty broke off. Lord Castlereagh, in his defence, 'disclaimed being actuated by any corrupt motive, or the exertion of any official influence, though he much regretted that he had inadvertently been led to converse on such a subject with such a man; and said, that if the house deemed the action, or rather the intention, which was all that the accusation amounted to, unparliamentary, he should bow to any censure which he might be thought to deserve.'

A resolution of censure was moved by lord Archibald Hamilton on the 25th of April; but this being an offence that was only contemplated, the chancellor of the exchequer moved the order of the day; in voting for which, Mr. Canning took occasion to remark, 'that he would by no means be understood thereby to pronounce the case submitted to them as not of very serious importance.' This opinion having apparently more weight than the vote, the order of the day was negatived, and Mr. Canning himself moved, 'that the house, on considering the whole of the case, saw no necessity for a criminating resolution,' which was carried by a majority of 214 to 167 voices.

Soon after the battle of Corunna the emperor Napoleon set out on his return to France. In the month of March, 1809, orders were issued for the French armies to recross the Rhine. The troops of Austria were assembled under the archduke Charles as commander-in-chief. On the side of Italy, the viceroy Eugene Beauharnois collected a numerous army. Early in April, the Austrians having passed the Inn near Scharding, the king of Bavaria quitted his capital, and retired to Augsburg. On the 18th Napoleon arrived at Ingolstadt. The first considerable action took place at Ebensberg, where the archduke Louis was surprised, and his division of troops dispersed or destroyed.

In the mean time the grand army under the archduke Charles took possession of Ratisbon, making the French garrison prisoners of war. On the 22nd of April the two armies met at Eckmuhl. The battle commenced at two in the afternoon, and was long and obstinate; but towards evening the Austrians were driven from their positions, and attempted to take refuge under the walls of Ratisbon, but the city was forced with great slaughter, and the Austrians retreated to the left bank of the Danube. Napoleon, following the course of that river, advanced to Vienna; into which capital, on the 10th of May, he once more entered as conqueror, the emperor Francis having previously retired to Moravia.

In the north of Germany a strong disposition to rise in opposition to the tyranny of France at this time manifested itself, had any rallying point existed. Colonel Schill, an officer late in the Prussian service, raised the standard of independence at Luneburg, and was joined by great numbers; but he was opposed and overpowered by a far superior force under Jerome Buonaparte. He then retired to Stralsund, in which place he sustained a siege, and was killed in the defence of it. The duke of Brunswick also, whose efforts, combined with those of Schill, and supported by Great Britain, might have been attended with the happiest results, took up arms when the cause was hopeless, and, after some temporary success, was compelled towards the close of August to embark on board a British squadron at the mouth of the Weser.

In Poland, the archduke Ferdinand being resisted by a very inferior force under prince Poniatowski, nephew to the late king Stanislaus, and whose great qualities made him the object of his country's secret hope and warm attachment, took possession of Warsaw, but was recalled in consequence of the early disasters of the Austrian arms. The Russians, then joining the Poles, occupied nearly the whole of the Austro-Polish provinces; but the emperor Alexander showed no disposition to push the war with vigor.

In Italy, where the archduke John commanded, the first operations of the Austrians were also successful, and he captured the cities of Padua and Vicenza; but, subsequently to the battle of Eckmuhl, he was also recalled to the defence of Austria. In his retreat the archduke was closely followed by the viceroy, prince Eugene Beauharnois, who obtained several advantages over him; and on the auspicious anniversary of the battle of Marengo, the two armies coming to a general engagement near Raab in Hungary, the Austrians were totally defeated, and that great bulwark of the kingdom fell into the hands of the enemy.

During an interval of repose, which passed after the indecisive battle of Esling, all the demonstrations of the French seemed to be pointed against that position, which was, in the expectation of attack, rendered almost impregnable by redoubts and intrenchments. But, on the night of July 4th, a bridge of vast dimensions was thrown across the river, with almost magical expedition and skill, opposite the left wing of the Austrians stationed at Wagram. Early next morning the whole French army had crossed the river, and appeared in order of battle. Thus surprised and disconcerted, the archduke Charles spent the day in manœuvreing and altering his dispositions. On the 6th of July, at sunrise, the long expected contest commenced. In his efforts to outflank the enemy, the archduke dangerously weakened his centre, upon which an assault was made with accumulated force. The Austrians, unable to withstand the shock, gave way, though by slow degrees, retreating finally near a league from the ground, leaving the wings exposed to an attack from the dukes of Rivoli and Auerstadt (Massena and Davoust). The village of Wagram being also forced by the enemy, the Austrians, perceiving the fate of the battle decided, fled with precipitation, and were pursued as far as Znaim in Moravia.

Napoleon now received a proposal from the emperor Francis to treat of peace; and a definitive treaty was concluded much less unfavorable to Austria than might have been expected. To Bavaria the emperor Francis was obliged to

yield the important territory of Saltzburg, with other districts in the vicinity. To France were ceded Fiume and Trieste, with the entire line of coast connecting the dominions of France on both sides of the Adriatic. In Poland the king of Saxony obtained, in addition to the provinces constituting the duchy of Warsaw, the Western Gallicia, with the city of Cracow. Another portion of Austrian Poland was assigned to Russia.

After the British army had embarked from Corunna, the French emperor bent all his efforts to the subjugation of Spain. A number of fugitives from the army of Castanos, which was defeated at Tudela on the 23d of November, 1809, had retreated to Saragossa, and, together with its martial citizens and armed peasants from the country, composed a body of 50,000 men, under the command of the renowned Palafox. The siege was conducted by the duke of Montebello, one of the ablest of the French generals. On the 26th of January the French made their grand attack. About noon on the following day the breaches were practicable, and the assailants entered the city. General Lacoste, and a great number of their bravest officers and men, fell in the assault. The determined resolution of the inhabitants, who disputed every inch of ground, and converted every house into a fortress, reduced the French to the necessity of mining and blowing up the houses. The Spaniards, on their part, had recourse to counter-mining; and the effects of this subterraneous war were dreadfully destructive. During these tremendous operations the batteries kept up an incessant fire; and, by mining and blowing up the houses as they proceeded, the French, on the 17th of February, at length became masters of the city. No fewer than 20,000 of its brave defenders were at this time buried under its ruins.

A series of disasters now fell on the patriot cause. The French army in Catalonia made three powerful attacks on that of the Spaniards under general Reding. In the last of these the Spanish general, after an obstinate conflict, in which he was severely wounded, was, on the 12th of March, driven from his position, and compelled to retire to Tarragona. Soon after general Cuesta was defeated 29th of March, at Medellin, and obliged to retreat to Monasterio. The patriots about this time recovered Vigo; but their casual advantages were sunk in the long train of disasters, and the French made themselves masters of the centre of Spain.

On the 22d of April Sir Arthur Wellesley once more landed at Lisbon with large reinforcements. Instantly repairing to Coimbra, he put himself at the head of the allied forces, and advanced against Oporto; at the same time detaching marshal Beresford to occupy the fords of the Upper Douro. Here marshal Soult, finding himself in danger of being insulated, judged it necessary to retreat into Gallicia. Meanwhile marshal Victor had made himself master of Alcantara; upon which the British commander returned to the south, and Victor retired to his former station at Guadiana.

Sir Arthur Wellesley on the 20th of July effected his junction with Cuesta at Oropesa; but marshal Victor, aware of his danger, had by this time crossed the Tagus. The British and Portuguese army now marched along the banks of the river towards Olalla, and took an advantageous position near Talavera de la Reyna. Early on the morning of the 28th the enemy attacked the British in force, making a demonstration also on the opposite quarter. The battle continued at intervals during the whole day, and ended in the final repulse of the enemy.

Marshals Ney, Soult, and Mortier, now advanced in great force upon the rear of the allies, and it became necessary for them to retreat to Badajos. On the eastern side of the peninsula, general Blake, after a fruitless attempt to recover Saragossa, was attacked and totally routed by the duke of Albufera (marshal Suchet) on the 19th of June;—and this disaster was followed by a much greater; for the central army, said to consist of 50,000 men, under the marquis Ariezaga, advancing upon Madrid, with the view of passing the Tagus at Aranjuez, was encountered 19th of November, by the French under king Joseph, assisted by the marshals Soult, Mortier, and Victor, at Ocana, near the south bank of that river, when the action terminated in a signal victory on the part of the enemy. The vanquished army retreated in confusion beyond the mountains. In the month of December the strong and important fortress of Gerona, after a long resistance, surrendered to marshal Augereau.

The king of Sweden persisted in the war with Russia, with what his subjects deemed insensate obstinacy. On the morning of the 13th of March, as he was preparing to leave Stockholm for his country residence, he was suddenly arrested in his own palace. He drew his sword in rage, but was immediately overpowered, and sent a prisoner to the fortress of Drotningholm. The duke of Sudermania issued a proclamation, in quality of administrator, declaring the incapacity and deposition of the king. This resulted in an act of abdication, signed by Gustavus IV., and a decree was passed, that he and his issue, born and not born, were for ever excluded from the throne of Sweden. The duke ascended the throne as Charles XIII., and a treaty of peace followed, 17th of September, with Russia. An accommodation between Sweden and France took place in December, in consequence of which the former recovered Pomerania, and the Isle of Rugen.

In the early part of June Sir John Stewart, commander of the British army in Sicily, undertook an expedition against the kingdom and capital of Naples, and landed with 15,000 British troops, afterwards joined by a body of Sicilians on the coast of Calabria. On the 24th the advanced division of the fleet anchored off Cape Miseno, and preparations were made for an attack on the Isle of Ischia. A descent being effected, in the face of a formidable chain of batteries, the defences of the enemy were turned, and their principal force retired to the castle, which surrendered on the 30th. The adjacent garrison of Procida was also summoned, and submitted; which paved the way for the capture of forty gun-boats in their passage from Gaeta to

Naples. But such a force was now assembled for the defence of Naples, that Sir John Stuart saw no prospect of success in an attempt against that capital. An unsuccessful attempt on the castle of Scylla, which the enemy afterwards abandoned, blowing up the works, concluded the military operations of the British in this quarter.

An undertaking of much greater moment occupied the attention of the British ministry during the summer of 1809: the memorable Walcheren expedition. Towards the end of July an army of 40,000 men was collected under the command of the earl of Chatham, assisted by a naval force, under the direction of Sir Richard Strachan. The principal object of the expedition was to gain possession of the islands commanding the entrance of the Scheldt, and the port of Flushing.

The armament invested Flushing on the 1st of August. A dreadful cannonade and bombardment commenced on the 13th, which on the 15th produced from the commander of the garrison, general Monnet, a request for a suspension of arms. This was followed by a surrender, which yielded nearly 6000 men prisoners of war. During the siege of this place, a great number of troops from the Belgic and nearest French provinces were assembled for the defence of Antwerp; so that an attack upon that important place, and the fleet lying under its fortifications, whatever might have been its success at the commencement of the enterprise, was now thought too hazardous. The troops likewise were becoming sickly, and lord Chatham was induced to depart for England on the 14th of September, with the greatest part of his army. The opinions of the ministry relative to the retaining or abandoning Walcheren itself were in a state of fluctuation. In the middle of September a requisition was made for a number of the peasantry of the island to repair and strengthen the fortifications of Flushing; and, near the end of October, 100 artificers arrived from England with brick and lime. Towards the middle of November, however, the demolition of the works and basin for shipping was begun; and on the 23d of December Walcheren was completely evacuated by the relics of the British army, one-half of which were either dead, or on the sick list.

Martinique and Cayenne were added to our conquests: and a French fleet of nine sail of the line, lying in the road of Aix, protected by the forts of that island, lord Cochrane, who was acting under the orders of admiral Gambier, proposed to make an attack upon it with a squadron of five ships, frigates, and smaller armed vessels. Standing in with a favorable wind, on the 11th of April, a boom laid across the entrance was broken through by the leading ship, and the greater part of the French ships slipped their cables, and ran for the shore. On the following day lord Cochrane gave information by telegraph to the admiral, that seven of the enemy's ships were on shore, in a situation which afforded an opportunity of destroying them. It being, however, found that the state of the wind rendered it hazardous to enter the roads, in which the water was shallow, with the large ships, admiral Gambier, who had unmoored, anchored again three miles from the forts, and sent all the small vessels to the attack. Lord Cochrane, leading the way, opened a fire on a ship of fifty-six guns, which struck, and this was followed by three others of the line, which were also forced to strike; all of which were set on fire and destroyed. The other French ships being got into deep water, moved up the Charente, where it was impracticable to molest them; but it was doubtful whether they could be again got out to sea.

Lord Collingwood, who had succeeded Nelson in the chief command of the ships in the Mediterranean, having proposed to general Stuart an expedition against the islands of Zante, Cephalonia, and others, whilst the French should be occupied with the defence of Naples, a joint force from Messina, Malta, and Corfu, was arranged for this purpose, and on the 1st of October it anchored in the bay of Zante. On the following day a capitulation was agreed on, by which all that group of islands surrendered to the British arms, and the government of the septinsular republic was restored.

On the 23rd of October three French ships of the line and four frigates, with a convoy of about twenty vessels, were descried coming from Toulon. Lord Collingwood directed rear admiral Martin to proceed with a squadron in chase of them; and on the 25th, off the mouth of the Rhone, two of the French ships of the line were chased on shore, and set on fire by the crews; while a third, with a frigate, ran on shore at the entrance of the port of Cette, with little chance of being got off. The convoy mostly escaped at the time into the bay of Rosas; but on the 30th some ships, with the boats of the fleet, under the orders of captain Hallowell, entering into the bay, most gallantly overcame all the resistance made, as well from the vessels as from the castle of Rosas and the forts, and captured or destroyed the whole.

Mr. Jefferson having been succeeded, in the office of president of the United States of America, by Mr. Maddison, the embargo, which had been severely felt from its long continuance, was repealed, and an act substituted prohibiting all intercourse with France and England, with a proviso, that, if either nation rescinded its obnoxious decrees, the prohibition relative to that nation should cease. Mr. Erskine, the English envoy in America, was consequently empowered to promise, that, if the American interdiction of July 1807 were withdrawn, the commerce of America with the French colonies should be placed on the same footing as in times of peace, the British cruisers being allowed to capture all vessels trading contrary to this restriction. But Mr. Erskine ventured also, without proper authority, to declare the orders in council rescinded from the 10th of June 1809, on the general engagement 'that an envoy extraordinary would be received by the president, with a disposition correspondent to that of his Britannic majesty.' The British government, however, refused its ratification to this agreement.

On the 16th of December Napoleon announced to the senate his intention of divorcing his empress; and the archduchess Maria Louisa

daughter of the emperor Francis, was pointed out as the future empress. This had been arranged at Vienna during the preceding summer, and the marriage was celebrated at Paris in the ensuing month of March, with great pomp and festivity.

In the course of this year several changes had taken place in the English cabinet. Mr. Canning did not enter very cordially into the defence of lord Castlereagh on the charge relative to the India writership; but it was not then known that he had previously applied to the duke of Portland for the removal of that nobleman from the war department, recommending the marquis Wellesley as his successor; obtaining a promise from the premier to that effect, though not for its immediate execution.

The melancholy termination of the Walcheren expedition, however, brought this state of masked hostility between these ministers to a crisis. Mr. Canning again urging his suit was surprised to find that no communication had been made to lord Castlereagh by the duke of Portland, and gave in his resignation. Lord Castlereagh, on the other hand, being now informed of all the circumstances, so highly resented the interference as to make an immediate demand of satisfaction. A duel accordingly took place on the 21st of September, in which Mr. Canning was wounded.

On the 23d of September Mr. Perceval, upon whom (in consequence of the resignation of the premier and the two secretaries) the chief, it may be said the sole, weight of the government now devolved, wrote to earl Grey and lord Grenville stating, 'that his majesty had authorised the earl of Liverpool (late lord Hawkesbury), and himself, to communicate with their lordships for the purpose of forming an extended and combined administration; and requesting their presence in London.' Lord Grenville on this repaired to town, in obedience to what he considered to be an intimation of the king's pleasure; but in his answer to Mr. Perceval, dated the 29th of September, he peremptorily declined the communication proposed, declaring, 'that it could not be considered in any other light than as a dereliction of public principle.' Earl Grey, writing from his seat in Northumberland, declared 'his attendance in town unnecessary, unless he had received the king's commands to that effect.' Mr. Perceval now accepted the office of first lord of the treasury: marquis Wellesley, who had superseded Mr. Frere in Spain, was recalled to receive the seals of the foreign department: lord Liverpool succeeded lord Castlereagh as minister at war; and the honorable Richard Ryder, lord Liverpool in the home department.

The 25th of October of this year, being the fiftieth celebration of his accession to the throne, was distinguished throughout the united kingdom as a jubilee, and was marked by every demonstration of loyal attachment and reverence.

The parliament of the united kingdom was convened on the 23d of January, 1810, and never did the political atmosphere exhibit a deeper gloom Russia, the only continental power which could singly cope with France, was in strict alliance with the French emperor. Austria had been once more prostrate at his feet. The resistance of Spain, in the general opinion, had become almost hopeless; and all the other powers of Europe were in a state of vassalage. Yet under these unfavorable circumstances the speech delivered by the lord chancellor, in his majesty's name, expressed 'his just confidence, under divine providence, in the wisdom of his parliament, the valor of his forces, and the spirit of his people. His majesty hoped that material advantages would be found to result from the demolition of the docks and arsenals of Flushing. The expulsion of the French from Portugal, and the glorious victory obtained by lord viscount Wellington at Talavera, had contributed to check the progress of their arms in the peninsula. Assurances had been received of the friendly disposition of America; and his majesty had much satisfaction in declaring the flourishing state of the national commerce, and increasing produce of the revenue.'

In parliament the speech of Mr. Perceval on the subject of the late overtures to lords Grenville and Grey, was particularly modest and conciliatory. In adverting to the overture made by the command of the king to lords Grey and Grenville, he protested that he did not wish for the situation which he then occupied. The circumstances of the times required a strong and extended administration; and he hoped that the application would have been successful. Had he been at liberty to state his proposals, the first would have been to resign the treasury to their disposal.

After a variety of other proceedings, in which the same subjects were indirectly brought under discussion, on the 26th of January lord Porchester moved in the house of commons, 'that a committee be appointed to enquire into the policy and the conduct of the late expedition to the Scheldt.' This motion was carried by the small majority of 195 to 186; and a committee of the whole house was fixed on for the purpose. His lordship afterwards moved for an address to the king for copies of instructions given to the commanders, and other papers, which was agreed to; and a secret committee was nominated for the inspection of such communications as were deemed improper to be made public.

Among the papers thus moved for was 'A copy of the earl of Chatham's statement of his proceedings, dated October 15th, 1809, and presented to the king February 14th 1810.' This document appeared, from its contents, to be an appeal to his majesty by the commander of one part of the expedition against the conduct of the commander of another part, and the circumstance occasioned much debate. A motion being made by Mr. Whitbread for an address to his majesty, requesting that there might be laid before the house copies of all reports and other papers submitted at any time to his majesty by the earl of Chatham, relative to the late expedition, was carried, on a division, by 178 to 171 votes. The answer returned to the address signified, that the king had received a report from lord Chatham on the 15th of January, which he had kept till February the 10th, when it was returned

to the earl in consequence of his desire to make some alterations in it: that the report thus altered, having been again presented to the king on the 14th, was directed by his majesty to be delivered to the secretary of state, and no copy of it was kept by the king. Mr. Whitbread, on the 2d of March, moved two resolutions respecting this matter: one stating the fact as above mentioned; the other a strong censure of the same. After a long debate the previous question was moved, but negatived by 221 to 188 voices; and, the first resolution being then carried, Mr. Whitbread waived the second, and admitted a modification of it proposed by Mr. Canning. It was then determined that the resolution should be entered on the journals of the house; the consequence of which was that lord Chatham resigned his office of master-general of the ordnance.

When the proceedings relative to the Walcheren expedition first came before the house Mr. Yorke moved an enforcement of the standing order for the exclusion of strangers, and continued to move it from day to day. Mr. Sheridan therefore moved a revision of the standing order, which was vehemently opposed by Mr. Windham, who launched into a furious invective against the reporters. This singular tirade was answered with spirit and temper by Mr. Stephens, an eminent civilian, who had himself in his earlier days, he acknowledged, been a reporter of the debates.

There was at this time a debating society in London, under the name of the British Forum, the president of which was John Gale Jones. On the 19th of February a placard appeared, informing the public that a question had been debated at the British Forum, 'Which was the greater outrage on the public feeling, Mr. Yorke's enforcement of the standing order of the house of commons for the exclusion of strangers, or Mr. Windham's attack on the liberty of the press? And that it was unanimously decided, that the enforcement of the standing order ought to be censured as an insidious and ill-timed attack on the liberties of the press.'

Jones was accordingly cited, on Mr. Yorke's motion, before the honorable house on the 21st of February, when he avowed himself the author of the paper, and, notwithstanding an apology, was committed to Newgate.

On the 12th of March Sir Francis Burdett, who had not been present at the former proceedings, called the attention of the house to this subject in a speech in which he ventured to deny altogether the power of the house to commit: and on the 24th of March there appeared in Cobbett's Weekly Register a letter, entitled 'Sir Francis Burdett to his constituents, denying the power of the house of commons to imprison the people of England.' This publication was brought before the house on the 26th by Mr. Lethbridge, and Sir Francis acknowledging himself to be the author, Mr. Lethbridge on the following day moved that the publication in question was a libellous and scandalous paper, reflecting upon the just rights and liberties of the house; and that Sir Francis Burdett, who suffered this paper to be printed with his name, had been guilty of a violation of those privileges. These resolutions being agreed to without a division, a motion was made by Sir Robert Salisbury for his commitment to the tower; and an amendment, softening the sentence to a reprimand, was rejected by 190 votes to 152. On the 6th of April the warrants for commitment were delivered to the serjeant at arms. That officer, on going to the house of Sir Francis, was informed that he would be ready to receive him the next morning; which being construed by that officer as implying that he would go with him peaceably to the tower, he retired. He however returned, accompanied by a messenger, who said that the serjeant had been severely reprimanded by the speaker for not having executed the warrant; the legality of which Sir Francis now denied. He declared his determination not to go unless compelled by actual force.

After a delay occasioned by the speaker's consulting the attorney-general respecting his authority, the sergeant went on the morning of the 9th of April, attended by a number of police officers, and a detachment of cavalry and infantry, to convey Sir Francis to the tower. An entrance being forced into his house, he repeated his objections to the warrant, and declared that he would yield only to force. The constables, on this, advanced to seize him, when he was led by his brother and a friend, taking his arms, and conducted to the carriage in waiting, whence he was conveyed to the tower. As the escort returned, a numerous mob assembled in Eastcheap, and attacked them with stones and brick-bats. At length, the attack becoming serious, some shots were fired, by which two or three lives were lost, and several persons wounded.

On his liberation, Sir Francis Burdett brought actions at law against the speaker of the house of commons for issuing his warrant, against the sergeant-at-arms for executing it, and against the constable of the tower for keeping him in custody, in all which he failed, on the plea of the legality of the warrant. His confinement was not terminated till the prorogation of parliament.

On the 16th of May the chancellor of exchequer brought before the house of commons his annual budget of finance. The supplies voted were stated at £50,500,000 for Great Britain and Ireland; and among the ways and means for the former were the war-taxes, estimated at £19,500,000, and a loan of £8,000,000. No new taxes were proposed; and a very favorable report was made of the commerce and general prosperity of the country. The foreign subsidies of the year were £400,000 to Sicily, and £900,000 to Portugal; and a vote of credit for £3,000,000 was passed to meet emergencies.

At the beginning of this year the cause of Spanish independence, as far as it depended on the people of Spain, was almost hopeless. The most interesting events of the campaign occurred on the side of Portugal. The great effort of France was to obtain the entire possession of that country. For this purpose it had been determined to commence with the reduction of the fortresses of Ciudad Rodrigo and Almeida. As soon, therefore, as the capture of Oviedo and

Astorga had set at liberty a part of the French troops employed to keep in check the Spaniards of the northern provinces, marshal Ney began to invest the former, and it surrendered July 10th. In the mean time marshal Massena arrived from France, to take the command of the army destined for the conquest of Portugal, and consisting of about 80,000 men.

Almeida was next invested, and the trenches were opened in the middle of August. It was garrisoned by 5000 men, partly English and partly Portuguese, commanded by British officers, and its governor was brigadier-general Cox. The vigor of the defence would probably have long retarded its fall, had not a bomb alighted on the principal magazine, which occasioned a terrible and most destructive explosion. Massena now withheld his fire, and sent a flag of truce offering terms of capitulation, which, on the 27th of August, were acceded to. The great contest for the possession of the country was now to commence. During the siege of Ciudad Rodrigo the principal post of the British army was at Guarda, whence the French lines might be descried, but nothing of consequence could be undertaken for its relief. After the surrender of Almeida, lord Wellington concentrated the different divisions of the allied army, and began his retreat towards Lisbon. He had formed a defensive plan, to which he steadily adhered. At the same time he put fully into practice the efficacious, though severe policy, of rendering all the country in the line of march entirely inhospitable to the French. On the 21st of September all the force under Massena was concentrated at Viseu, where it halted for a time; during which lord Wellington passed to the right of the Mondego, and occupied with his centre and left wing the Sierra Buzaco, which extends to that river. Massena, on arriving in front of his position on the 26th, resolved upon an attack. The French pushed up the heights with great courage in different parts, and one division reached the summit of the ridge: they were, however, met with equal resolution at the point of the bayonet, and were finally repulsed with great loss, 2000 men being left on the field. The loss of the English and Portuguese was also considerable. Massena now made a circuitous march upon Coimbra; but lord Wellington anticipated his object, and arrived there before him. The place, however, affording no advantages for defence, he continued his retreat to the strong lines of Torres Vedras.

The French emperor was now at the zenith of his glory, and the Seven Provinces of Holland were inseparably annexed to the French empire. The Valais of Piedmont were also annexed to France, for the purpose of securing the passage of the Alps by the Simplon; and possession was taken of the Hanse towns, and of the whole course from the Elbe to the Ems,—commanded, it was said, by circumstances. The electorate of Hanover was annexed to the kingdom of Westphalia, and its very name was abolished; and to that country, and all the other dependent kingdoms, the conscription laws were extended. In France, the chains of despotic power were rivetted by spies, arbitrary imprisonments, a rigorous police, and restrictions on the liberty of the press.

An event took place this year in Sweden, which may be ranked among the most extraordinary occurrences in European history. On the 29th of May the prince of Augustenburg, presumptive heir to the crown of Sweden, died suddenly; and a diet was assembled in August, 1810, to fill the vacancy. In consequence of a strong letter of recommendation from Napoleon, the king of Sweden proposed marshal Bernadotte as the person on whom he wished the choice to fall; and, on the 1st of November, Bernadotte was installed.

The isles of Bourbon and France, in the Indian Ocean, which had so long been a great annoyance to our East India trade, were this year brought under the dominion of Great Britain. Lord Minto, governor-general of India, having laid the plan for their reduction, a body of Europeans and Sepoys, about 1600 of each, sailed from Madras, and, being joined by about 1000 more from the island of Rodriguez, the whole under the command of lieutenant-colonel Keating, with a fleet of men-of-war and transports, the expedition arrived early in July off the island of Bourbon. Dispositions were made for an attack on the principal town, St. Denis, but it was prevented, on the 8th, by an offer to capitulate on honorable terms, which were granted. The other town, St. Paul, was taken possession of on the 10th, and the whole island submitted.

In the month of November a body of troops, consisting of 8,000 or 10,000, from India and the Cape of Good Hope, commanded by major-general Sir John Abercromby, and a fleet under admiral Bertie, took possession of the Mauritius, or Isle of France. The garrison was sent to France, and to be at their own disposal. This was the most valuable of the remaining French possessions to the eastward of the Cape of Good Hope. Three frigates were afterwards despatched to destroy the French batteries on the coast of Madagascar, which being effected, there was not left to France, at the beginning of the following year, a slip of land in either Indies, nor a ship on the Indian Ocean.

On the 17th of February the Dutch settlement of Amboyna, with its dependent islands, was surrendered to a British force from Madras. A party of seamen also, commanded by captain Cole of the Carolina frigate, having on the 8th of August carried a fort upon Banda Neira, the whole island of Banda, the principal of the Spice Islands, with its dependencies, though protected by 700 regular troops and 300 militia, surrendered unconditionally, and afforded a rich prize to the captors.

The differences between the governments of Great Britain and the United States of America still remained unadjusted. On the recall of Mr. Erskine, Mr. Jackson had been sent to succeed him; but the firm and unyielding tone taken by him, with the disavowal of Mr. Erskine's agreement, contributed to render him unacceptable; and the American resident in London was instructed to demand his recall. Mr. Galatin, treasurer of the States, now sent letters to the different collectors

of the customs, announcing the abolition of the restrictions with regard to France, she having revoked her edicts, but declaring that they would be revived in full force with regard to Great Britain on the ensuing 2d day of February, should she not in like manner have revoked her decrees. By a second letter he gave his opinion, that, in the case above-mentioned, all British goods arriving subsequently to the 2d of February would be forfeited.

The princess Amelia expired on the 2d of November 1810; and the king's mind received a shock from the illness and death of the princess from which he never recovered. The parliament had been prorogued to the 1st of that month, and a commission prepared by the lord chancellor, under an order in council, for a further prorogation to the 29th; but, as the sign-manual was wanting, the two houses met on the day previously fixed. The illness and inability of the king to open the session being announced, an adjournment of a fortnight was agreed to; and the members of both houses were summoned for the 15th. This was followed by a second adjournment to the 29th, and again by a third to the 13th day of December. The physicians, on examination before the lords of council, and afterwards before a committee of both houses, accorded in their firm belief of his majesty's recovery; grounding this expectation on the general state of his health, and the precedents of 1788, 1801, and 1804. At length Mr. Perceval, adopting the mode of procedure of 1788-9, moved three resolutions, affirming, 1. The incapacity of the king; 2. The right of the two houses to provide the means of supplying the defect; 3. The necessity of determining upon the means of giving the royal assent to a bill for that purpose. The opposition, waiving altogether the question respecting the right of the prince of Wales to the regency, merely proposed that the prince be addressed to take upon him the executive duties. This was negatived in the house of peers by 100 to seventy-four, and in the commons by 269 to 157 voices.

The resolutions moved by Mr. Perceval having been carried by great majorities, that minister apprised the prince, by letter, of the restrictions he meant to propose; and, in a brief reply, the prince referred to the letter which he addressed to Mr. Pitt in 1789. The other members of the royal family also transmitted to Mr. Perceval their protest against the restrictions. The grand division on the question of restrictions was carried, on the 31st of December, in favor of ministers, by 224 to 200 voices. The regency finally passed into an act on the 5th of February 1811. The restrictions were to remain in force to the 1st of February 1812. The restoration of the king was provided for by a simple notification to the privy-council, by the queen and her assistant counsellors, viz. the two archbishops, the lord-chancellor, the lord chief-justice, the master of the rolls, the duke of Montrose, and the earls of Winchelsea and Aylesford.

11. *From the Regency to the death of George III.*—From the avowed sentiments of the prince, it was generally expected that a total change of administration would take place; and in a letter to Mr. Percival, announcing his intention of continuing the present ministers in office, he explicitly stated, that duty and affection for his beloved and afflicted parent alone had dictated his decision. So strong, indeed, were the prepossessions at this period respecting the king's recovery, that the leaders of opposition themselves were believed to be indifferent to the acceptance of office. The first measure submitted to the regency parliament opened on the 12th of February 1811, respected the Catholic committee of Ireland; a standing delegation, consisting of ten persons elected from each county, charged with the management of the affairs of that body.

This kind of organisation gave an alarm to government, and produced a circular letter from Mr. Wellesley Pole, secretary to the lord-lieutenant, requiring the magistrates of Ireland, in pursuance of an act of the thirty-third of the king, to cause to be arrested and committed to prison, unless bail should be given, all persons within his jurisdiction guilty of having been in any way concerned in issuing notices for such election or appointment. On the 18th of February the earl of Moira brought the matter before the house of lords; and asked ministers, whether the measure had been settled by them before Mr. Pole's departure for Ireland? The earl of Liverpool replied that they knew nothing of the matter until the news arrived, but that it was accompanied with reasons for the procedure which justified it. The subject was introduced in a similar manner into the house of commons by Mr. Ponsonby, when Mr. Perceval made the same assertion. In the mean time Mr. Pole having arrived from Ireland explained in his place in the house of commons the whole transaction. His principal object was to show in what respect the proceedings of the Catholic committee of 1809, which had not been interfered with, differed from those which produced this act of government.

In answer to a question from Mr. Ponsonby, whether the law officers had been consulted on the occasion, he affirmed that the lord-lieutenant had taken the opinions of the lord-chancellor and the attorney and solicitor-general, and that the latter had drawn up the letter issued by himself. In conclusion, Mr. Ponsonby's motion was negatived by 133 against forty-eight votes.

The Catholic petition was presented to the house of commons by Mr. Grattan on the 20th of May; and on the 31st he moved that the same should be read, and also the votes of the house conveying thanks to the armies under lord Wellington and general Graham, in which were many Irish Catholics. From these documents he took his ground, to show that there was nothing in the Roman Catholic religion itself which encouraged disaffection, but that the manner in which the Catholics had been treated by government was the true cause of their discontents. After enlarging with great force on these heads, he concluded with moving that the petition be referred to a committee of the whole house. The motion was ably supported by other speakers; and, on the other hand, it was opposed on the grounds of a supposed inherent principle of intolerance

in the religion of Rome, of the apprehension that the Catholics would still be rising in their demands, and of danger to the Protestant establishment should their claims be allowed. On a division, there appeared for the motion eighty-three, against it 146.

Lord Donoughmore introduced the petition into the house of lords on the 18th of June, when he moved for referring it to a committee. But the division on the motion gave, contents sixty-two, non-contents 121.

The Irish Catholics were too zealous and confident in their cause to regard their parliamentary defeat as a reason for renouncing their plans; and the summer was actively employed in meetings for the nomination of delegates, several of which were attended by Protestant gentlemen, who regarded Catholic emancipation as a branch of the general liberty of Ireland. On the other hand, government resolved not to submit passively to the violation of its injunctions. An aggregate meeting being held at Dublin, July 9th, for the appointment of delegates to the general committee of Catholics, five persons were apprehended by a warrant from the lord chief-justice for a breach of the convention act; one of whom, Dr. Sheridan, was put upon his trial before the court of king's-bench in Dublin; but the jury brought in a verdict of not guilty.

In the debates relating to the regency bill, in the house of lords, earl Grey had taken notice of the circumstance of the king's having been suffered to perform some of the functions of royalty in 1804; and Mr. Whitbread brought forward in the commons a motion for a committee to examine the lords' journals for the evidence of the physicians respecting his majesty's health in 1804, and to report the same to the house. Lord Castlereagh rose in defence of the chancellor, at the same time declaring his readiness to share the responsibility of the transaction referred to. The defence turned upon the unanimous declaration of the physicians as to the king's competency to transact business on February 27th, though none was submitted to him till March 5th. On the 9th it was necessary to obtain his sign-manual to the mutiny act, which could not be deferred without danger. In these and other instances the physicians had sanctioned the application to him. Mr. Whitbread, in reply, pledged himself to make out the whole charge, if opportunity were given him of cross-examining the physicians. His motion, however, was negatived by 198 against eighty-one.

The operation of the Berlin and Milan decrees, enforced as they were by the orders in council, had now produced the most fatal consequences to the mercantile interest. The loan for the last year had sustained a ruinous depreciation; and, the foreign demand for British manufactures being greatly reduced, numerous failures were the inevitable and melancholy result. A select committee was appointed to enquire into the state of commercial credit, who recommended as a temporary expedient an issue of exchequer bills, to the amount of £6,000,000, for the relief of such persons as could give satisfactory security for repayment.

It has been mentioned that the regent, considering himself as the possessor of only a restricted and temporary authority, declined taking any part in public transactions, and allowed the ministers whom he found in office to pursue their own plans without interference. Yet one act, which soon followed his accession to power, was certainly regarded as a spontaneous exertion on his part; this was the re-appointment of the duke of York to the office of commander-in-chief of the army.

Lord Milton, on the 6th June, after various observations relative to this transaction, moved the following resolution:—'That, upon a deliberate consideration of the recent circumstances under which the duke of York retired from the army in March 1809, it appears to the house that it has been highly improper and indecorous in the advisers of the Prince Regent to have recommended to his royal highness the re-appointment of the duke of York to the office of commander-in-chief.' The chancellor of the exchequer fully acknowledged the responsibility of ministers for the measure, but contended that, when Sir David Dundas had expressed a wish to retire, they could have no doubt or hesitation as to whom they should recommend to supply the vacancy; and no vote had passed the house to preclude the duke of York's restoration. It appears that a considerable change had, by this time, taken place in the minds of the majority of the members relative to this matter, as the votes against it, on a division, were 296 to forty-seven.

The measure of an interchange of the militias of Great Britain and Ireland was introduced into the house of commons, on the 17th of May, by Mr. secretary Ryder, who moved for a bill to invest the crown with a power to that effect. By a clause of this bill Irish Catholics serving in England were entitled to all the civil, military, and religious exemptions which they possessed in Ireland. This, in fact, was the measure in relation to which the cry of 'No popery' had been raised against the late ministers.

Parliament was prorogued on the 24th July, with a speech in the Prince Regent's name, delivered by commission, in which great satisfaction was expressed with all the measures of the session.

The peninsula of Spain and Portugal still continued the grand theatre on which the contest for the liberties of Europe was maintained. The campaign commenced at a very early part of the year.

On the 25th of February an armament was sent out from Cadiz, under the command of lieutenant-general Sir Thomas Graham, who disembarked a body of English, Spaniards, and Portuguese, at Algesiras. The object of the expedition was to attack the French who were employed in the siege; and, the landing being effected on the 28th, the allied army arrived, on the morning of the 5th of March, on the ridge of Barossa, about four miles to the southward of the river of Santi Petri. Here the French army consisted of about 8000 men, formed in two divisions, and in a high state of discipline and equipment. The allied force scarcely amounted to 6000 men, of whom about one-half were English. A battery of ten pieces of cannon, under the direc-

tion of major Duncan, opened on the enemy's centre, and the right of the allies attacked general Rufin's division on the heights; while lieutenant-colonel Barnard's battalion, and a detachment of Portuguese, were engaged with the enemy's tirailleurs. But Laval's division, notwithstanding the havoc made by major Duncan's battery, advanced in imposing masses, and opened a destructive fire of musketry. The left wing of the allies now advanced, keeping up a constant fire; and a most determined charge of the sixty-seventh regiment and the three companys of guards, supported by all the rest of the wing, decided the fate of general Laval's division. The eagle of one of the regiments of light infantry was taken by major Gough.

The right wing of the allies was equally successful. The French lost, on this occasion, about 3000 in killed, wounded, and prisoners, with one eagle, six pieces of cannon, their ammunition waggons, and a number of horses. General Bellegarde, chief of the staff, an aide-du-camp of marshal Victor, and several other officers, were killed, and many were wounded and taken prisoners, among whom were the general of division, Rufin, who soon after died. The loss of the allies amounted to about 1240 killed and wounded.

About the same time that the British arms were so successful on the heights of Barossa, marshal Massena commenced his retreat from Santarem, where he had never been able to attack lord Wellington. Scarcity of provisions obliged him to retire. The British general, having the Tagus on his right and Lisbon in his rear, was in a commanding position which ensured ample supplies. Massena was closely followed by lord Wellington, whose van attacked the rear of the French on the 11th of March, and gained a considerable advantage. But this success was more than counterbalanced by the loss of Badajoz, which surrendered on the same day to the duke of Dalmatia.

Lord Wellington now made arrangements for the blockade of Almeida, and employed the interval of active operations in a visit to the corps under the command of marshal Beresford in Spanish Estremadura, consisting of a united force of British and Portuguese. After repulsing an attack from the French on the 7th of April, near Olivença, he took a position whence he could invest that place and Badajoz. Olivença surrendered to the marshal on the 15th; and lord Wellington having had an interview with him, during which they established the blockade of Badajoz, returned to his army.

On the 15th of April the fortress of Olivença surrendered to the allied arms; and it was determined to lay siege to Badajoz with vigor. But on the 12th May the re-advance of marshal Soult was announced by general Blake, and the three commanders resolved to give battle to the enemy. With this view the siege was raised, and the army took a strong position fronting the banks of the Albuera.

Early on the morning of the 16th of May the French passed the stream, designing to attack the Spaniards under Blake, and to turn the right wing of the allies. After an obstinate resistance the enemy gained the heights, but, Sir Lowry Cole bringing up the reserve, the enemy were driven from them with great slaughter. Their attack on the village and the bridge in the centre was likewise successfully repelled by baron Alten of the German legion, which, with the division of general Hamilton, defended that post; and the whole French army, after six hours' fighting, repassed the Albuera with precipitation. Soult is said to have acknowledged, 'that, in the long course of his military service, he had never before witnessed so desperate and sanguinary a contest.' The siege of Badajoz now re-commenced.

Towards the close of September the British troops again took the field, threatening Ciudad Rodrigo; but, before lord Wellington could complete his preparations, Marmont assembled a vast force, amounting to 60,000 men, with a view of turning the left of his position. His able antagonist, aware of this design, made a timely movement beyond the Coa; on which Marmont withdrew. During these operations general Hill, being joined by a Spanish force, on the 28th of October, surprised and totally defeated a corps of the French under general Girard, at Arroyo del Molino, the enemy losing 2000 men, with their artillery and baggage.

The principal event of the summer campaign in Spain was the siege and reduction of Tarragona. Marshal Suchet marched against this important sea-port of Catalonia about the end of April; and on the 5th of May he completed the investment of it as far as the sea. A furious assault on the 21st, after great slaughter on both sides, put the lower part of the town, which the besiegers had got access to through the capture of an outwork, in the power of the French. The garrison, however, still held out, till, on the 28th, a practicable breach being made, the assailants rushed in, and almost immediately carried the place. Suchet, who appears not to have been unwilling that a terrible example should be given by its fate for the purpose of intimidation, related, in his account of the transaction, that 4000 persons were put to death in the city, and of 10,000 or 12,000 more, who endeavoured to escape over the walls, 1000 were sabred or drowned, and 10,000 made prisoners. By this conquest, the French became possessed of the whole coast of Catalonia. In the month of September Suchet entered Valencia, and on the 27th took possession of Murviedro. He then opened trenches against its fortress, and made several vain attempts to carry it. In the mean time general Blake, collecting all the disposable force in that quarter, occupied the heights above the besieging army, where on the 25th of October he was attacked, and, after a well contested battle, was defeated. On the following day the fortress of Murviedro capitulated. Suchet then advanced to the suburbs of Valencia. On the 26th of November he attacked Blake's protecting army, the cavalry of which being routed, the infantry took shelter in their intrenched camp. This was afterwards forced; on the 25th of December Valencia was invested on every side.

In the beginning of 1811 the Spanish Cortes issued a proclamation, declaring that they would not recognise any act of Ferdinand VII. while

deprived of his liberty. In April they passed a decree abolishing the torture. Other proceedings of that assembly, tending to the removal of old grievances, were—the admission of plebeians as well as nobles into the military colleges; the application to the use of the military hospitals of sums destined for the use of religious fraternities; and the abolition of jurisdictional seigniories and vassalage. The doctrine of the sovereignty of the nation, however, met with opposition from the royal council, which circulated a paper expressly denying it.

Russia continued throughout the year to waste its population and revenues in its war with the Ottoman Porte.

The state of affairs between Great Britain and the United States still remained unadjusted. Early in the year Mr. Forster was sent over as envoy extraordinary and plenipotentiary. But so long as the English government was determined to maintain the fatal orders in council, nothing could be effected. In the month of May an accidental encounter, originating in some point of naval etiquette, occurred between a British and an American frigate. The two governments equally disavowed intentional hostility; but all these things tended to mutual irritation. On the meeting of congress, on the 4th of November, president Maddison announced the necessity of putting the United States into an armour and attitude demanded by the crisis, and corresponding with the national spirit and expectation.

South America was now involved in all the miseries of civil war. In Mexico several sanguinary engagements during the last and present year terminated in a decided superiority of the royalists. The confederacy of Venezuela placed general Miranda at the head of their forces, and felt themselves strong enough to meet in congress and issue a declaration of independence, conceived in language not less forcible than that of the North Americans on their separation from Great Britain. In the viceroyalty of Buenos Ayres, the capital, with the greater part of the province, had adopted the cause of independence; while Monte Video held firm to the interest of the mother country.

The most splendid naval achievement of this year was the conquest of the Isle of Java, by an armament fitted out from Madras, under the auspices of lord Minto. The small island of Madura also submitted; and thus not a vestige was left of the eastern dominion of the Gallo-Batavian empire.

Opposing fleets were now no longer to be found on the ocean; but, in the absence of the pride and pomp of war, the public attention was arrested by a remarkably gallant action of an English squadron of four frigates, of which captain Hoste was the commodore. It occurred off the north point of the island of Lesina on the coast of Dalmatia, which the enemy had been sent to fortify and garrison. On the 18th of March the English commodore descried a French force of five frigates and six smaller vessels, with 500 troops on board. Confiding in his superiority the French commodore bore down in two divisions to attack the English, who formed in a close line to receive him. The action commenced by an attempt of the French commander to practise the manœuvre of breaking the line, in which he failed; and, endeavouring afterwards to round the English van, he was so roughly treated that his ship became unmanageable and ran on the rocks. The action was still maintained with great fury, till two of the French frigates struck. Two others crowded sail for the port of Lessina, and the small vessels dispersed in all directions. The result of this action, which ranks among the most brilliant achievements of the British navy, was the burning of the ship of the brave French commodore, who was killed in the engagement. and the capture of two others. A fourth, which had struck her colors, took an opportunity of stealing away, and was in vain reclaimed as lawful prize by captain Hoste. The loss of the English amounted to 200 in killed and wounded.

The close of this year was remarkable for violent storms occasioning great losses at sea of which the British navy partook in full proportion. Among the domestic occurrences of the year it may be interesting to mention, that a census of the population of Great Britain was taken this year, exhibiting a result highly favorable to the prosperity of the kingdom. The total of the population returned in 1801 was 10,942,646; that of 1811 was 12,552,144; exhibiting an increase of 1,611,882, of which almost every town and district numbered had a share.

The interior tranquillity of England was little disturbed during the greater part of the year, but towards the close of it serious tumults broke out in the districts of the hosiery manufactory, particularly in the county of Nottingham; occasioned by the invention of a wide frame for weaving stockings, and the discharge of many workmen in consequence.

The year on the history of which we are now about to enter will long be distinguished in the annals of Great Britain. The parliament was opened by commission on the 7th of January 1812. The council appointed to assist the queen, acknowledged, that in the opinion of all the physicians, his majesty's complete and final recovery was improbable.

At an early period of the session, Mr. Perceval proposed a plan for the arrangement of the royal household, and recommended such an addition to the civil list as might support the separate establishments. The state of Ireland, with reference to the Roman Catholics, was brought early in the session under the discussion of both houses, but all concession to the Catholic claims was negatived in the house of lords by 162 to seventy-nine; in the commons by 229 to 135.

In a committee of supply, 13th of April, the sum of £554,441 was moved for as the expense of the barrack department for the current year. Among other items in the estimate, which were thought extravagant, particular exception was taken to the charge of £138,000 for a barrack to be built for the second regiment of life guards, in a piece of ground newly taken in under the

name of the regent's park, and which was generally understood to be designed for an ornament to the park. In repeated debates, on the subject of the barrack estimates, objections were made to this and some other articles; and an amendment proposed for a reduction of the sum was rejected by no greater majority than 134 to 112. This public discussion was not without its effect; for, when the budget was brought forward by the new chancellor of the exchequer, it was announced that the treasury had struck off an additional vote of £90,000 for the barrack department, it having been resolved to postpone the execution of the projected barracks at Mary-le-bone park, Bristol, and Liverpool.

Early in the year the cabinet sustained a considerable loss by the resignation of the marquis of Wellesley. The motives of this step were stated to have been a difference with his colleagues as to the scale on which the war in Spain and Portugal was to be carried on. He declared, that on certain principles he would be ready to serve with Mr. Percival, but that he would never serve under him: his resignation was accepted on the 19th of February, lord Castlereagh succeeding him in the post of secretary for foreign affairs.

On the 13th of February the prince regent addressed a singular letter to the duke of York, in which he declared, 'that, the restrictions of the regency act being about to expire, he must make his arrangements for the future administration; his sentiments relative to which he had hitherto withheld, from his earnest desire that the expected motion on the affairs of Ireland might undergo the deliberate discussion of parliament, unmixed with any other consideration. He could not reflect without pleasure on the events which had distinguished the short period of his restricted regency: and in regard to the war in the Peninsula, I shall,' said his royal highness, 'be most anxious to avoid any measure that can lead my allies to suppose that I mean to depart from the present system; and I cannot withhold my approbation from those who have honorably distinguished themselves in support of it. I have no predilections to indulge, no resentments to gratify. Having made this communication, I cannot conclude without expressing the gratification I should feel, if some of those persons with whom the early habits of my public life were formed, would strengthen my hands, and constitute a part of my government. You are authorised to communicate these sentiments to lord Grey, who I have no doubt will communicate them to lord Grenville.'

This letter excited no little surprise. It seemed particularly strange, that his royal highness could for a moment indulge the expectation that the lords Grey and Grenville, who had rejected with disdain the far more respectful overture of 1809, should now condescend to constitute a part of Mr. Perceval's administration. On the failure of the negociation, which was the result, lord Boringdon, on the 19th of March, moved in the house of lords for an address to the prince regent, beseeching him to form an administration so composed as to unite the confidence and good-will of all classes of his majesty's subjects. In the debate, lord Grey stated the points on which lord Grenville and himself had declined a union with the present ministers. These were principally the conduct to be pursued towards the Catholics and towards America.

The existing administration now proceeded unchanged, and without any sympton of want of stability, till it was deprived of its leader by a most tragical incident. On the 11th of May, as Mr. Perceval was entering the lobby of the house of commons about five in the afternoon, a person of the name of Bellingham fired a pistol at him, the ball of which entered his left breast and pierced his heart. He staggered, fell, and almost instantly expired. Nothing could surpass the consternation excited in both houses by this catastrophe. It was however soon discovered, that the act was merely in revenge of some supposed private injury; and that Bellingham, having in a commercial visit to Russia sustained some heavy losses, resolved to make a sacrifice of some conspicuous member of the government which he thought had neglected him. He was tried and executed for the offence; while the general regard entertained for Mr. Perceval's character as a man, even by those who widely differed from him in political opinions, was testified by an ample provision unanimously voted for his widow and family. The earl of Liverpool, on whom the post of leader in the cabinet now devolved, was directed by the prince regent to endeavour to acquire an accession of strength by the association of the marquis Wellesley and Mr. Canning. But his negociation for this purpose failed, on the perplexing topic of the measures to be pursued with regard to the Catholics, and the scale on which the war in the Peninsula was to be carried on. Mr. Stuart Wortley, on the 21st of May, brought a motion before the house of commons for an address to the prince regent, praying him to take such steps as might be the best calculated to form an efficient administration; and an attempt to set it aside by the order of the day was defeated by 174 to 170. Mr. Wortley next moved, that the address should be presented by such members as were of the privy council: to his great surprise it was rejected by a majority of two. At length it was agreed upon, that it should be presented by lord Milton and himself. The answer was that his royal highness would take the address into his serious and immediate consideration.

The marquis Wellesley, and the earl Moira, now each in vain endeavoured to form a stronger ministry. In the house of lords, on the 3d of June, the former stated 'that the most dreadful personal animosities, and the most terrible difficulties arising out of questions the most complicated and important, interposed obstacles to an arrangement.' These strong expressions he afterwards explained as not referring to the prince regent, but to the earl of Liverpool and his colleagues, who, however, disdained the imputation.

At length on the 9th of June the prince regent appointed the earl of Liverpool first lord of the

treasury, and Mr. Vansittart chancellor of the exchequer. The earl of Harrowby (late Mr. Ryder) became president of the council; lords Bathurst, Sidmouth, and Castlereagh, were secretaries of state. Viscount Melville was promoted to the admiralty, in the room of Mr. Yorke, who was gratified with the tellership of the exchequer. Lord Eldon continued chancellor, lord Westmoreland privy seal; and the earl of Moira, now honored with the garter, was appointed governor-general of India.

Soon after his accession to office Mr. Vansittart brought forward his plan of finance, or rather, as he said, that of his lamented predecessor, for the current year. The whole of the supply demanded for the United Kingdom was £58,000,000. Of this grand aggregate the sum of £15,650,000 was raised by loan for Great Britain; and for Ireland a separate loan of £4,350,000. Nearly £10,000,000 were funded of exchequer bills; the war taxes were estimated at £20,400,000; a vote of credit was passed for £3,000,000; and the urgent necessities of the East India Company required the sum of £2,500,000. The annual taxes, and consolidated fund, furnished the remainder of the supply, and new taxes were imposed to the amount of nearly £2,000,000.

On the 22d of June Mr. Canning moved a resolution, 'That this house will, early in the next session, take into consideration the state of the laws respecting the Catholics.' This was supported by lord Castlereagh, who observed, 'that, the obstacles which formerly existed having been removed, the time was now arrived when it was highly proper to take the claims of the Catholics into consideration.' On this joint recommendation the motion was carried by a decisive majority of 225 to 106 members. On a similar resolution proposed in the upper house, by marquis Wellesley, the previous question was put by the lord chancellor, and carried by 126 to 125 peers.

Towards the close of the session Mr. Brougham, in a very able speech on the subject of the orders in council, moved an address to the prince regent, 'beseeching him to recall or suspend those orders, and to adopt such measures as might tend to conciliate neutral powers.' Lord Castlereagh, after deprecating the attempt to urge the house to 'a precipitate decision,' intimated, that government had in view the adoption of conciliatory measures respecting America. The motion of Mr. Brougham was in consequence withdrawn; and on the 23d of June appeared a proclamation announcing the suspension of the orders in council of January 1807 and April 1809, as far as regarded American property, from the 1st of August following, on the condition that America should, on the regular notification of the same, also rescind or suspend its prohibitory decrees. Unhappily this tardy concession, like all the former conciliatory measures respecting America for forty years past, came too late to be of any avail. On the 30th of July the parliament was prorogued by commission; and on the 29th September it was unexpectedly dissolved.

In Spain, towards the close of the last year, the town of Tariffa in Andalusia, garrisoned by 1000 British infantry, with a detachment of artillery, and a body of Spaniards, was invested by the French with an army of 10,000 men. A breach being made in the wall, the enemy advanced to the assault on the 31st December, when they were obliged to retreat; and, on January 5th, their columns were seen retiring, having left behind them their ammunition, artillery, and stores. This defence was thought to confer great honor on the garrison and its commander, who held out with only 1800 men, behind a weak wall, against a marshal of France. Badajoz was reduced to the utmost extremity. The siege of Ciudad Rodrigo was now pressed; and on the 19th an attack was made in five separate columns, which proved completely successful. The garrison, after a desperate conflict, surrendered to the number of 1700 men besides officers, thus placing in the hands of the captors the heavy train and stores of the French army. The British sustained a severe loss in the death of major-general Mackinnon, who fell at the head of his storming party, and the number of killed and wounded, which was not less than 1200. After strengthening the fortifications, lord Wellington moved the greater part of his army to the southward for the support of general Hill, who was blockading Badajoz with about 12,000 men. On the 6th of April three practicable breaches were made, and a resolution was instantly taken to storm the place. The conduct of a false attack was entrusted to lieutenant-general Leith, with instructions to convert it into a real one, should circumstances prove favorable. General Picton in the mean time was to attack the castle by escalade. In an hour and a half he was master of the castle. The light division under Colville, after repeated attempts, was unable to gain the bastions; but the false attack under general Leith, and the other operations of the besiegers, entirely succeeded. The French governor retired into Fort St. Christoval, and surrendered on the following day. The garrison, which originally amounted to 5000 men, had lost in killed and wounded 1200. The British and Portuguese had 800 killed and 2000 wounded. Marmont, after in vain attempting to surprise Ciudad Rodrigo and Almeida, now penetrated into Portugal as far as Castello Branco, where he no sooner learnt the result of the siege than he commenced a retreat. Soult, who had reached Villa Franca, also fell back with equal alacrity, pursued by the British cavalry under Sir Stapleton Cotton. On the 11th of April the dragoons under major-general Le Marchant charged the rear-guard of the French with impetuosity, and drove them with the utmost confusion into Llerena.

Lord Wellington appeared before Salamanca with his main army on the 16th of June, when the French general, leaving a force to defend the fortifications, retired with his troops across the Tormes. He afterwards attempted to relieve the forts, which from their strength had been formed into a depôt of stores; but the British general, by a masterly manœuvre, compelled him to abandon them to their fate. Lord Wellington then put his army in motion against Marmont, who retired across the Douro, destroyed the bridges, and concentrated his forces at Tordesillas. Lord Wellington now menaced the Spanish

capital; and a series of skilful movements ensued on both sides, until the 21st of July, when the allied army was concentrated on the Tormes. On the same day the French crossed the river, and appeared to threaten Ciudad Rodrigo. During the 22d and 23d Marmont practised a variety of evolutions to distract the attention of the British general from his real plan, which was to enclose the allies in their position on a peninsula formed by the river, and to cut off their retreat. In aiming to surround the British, he extended and weakened his own line; and lord Wellington, watching the progress of this error, seized the favorable moment for striking a decisive blow.

Major-general Pakenham, with the third division, commenced a furious assault on the flanks of the enemy's left, in which he was supported by brigadier-general Bradford's brigade, by the fourth and fifth divisions, and by the cavalry under Sir Stapleton Cotton in front. The French, though finely posted and supported by cannon, were overthrown. Three entire battalions surrendered; and large quantities of stores, baggage, and ammunition, fell into the hands of the conquerors. Eleven pieces of cannon, two eagles, and six stands of colors were taken; five generals, three lieutenant-colonels, 130 officers of different ranks, and 7000 soldiers, were made prisoners.

Leaving a force under general Paget, to watch the motions of the enemy, lord Wellington now advanced with the main body of his army to the Spanish capital. King Joseph, who with 20,000 men under his command had reached Segovia, hearing of the defeat of Marmont, hastily retreated through Madrid to Almanza, a position from which he could communicate either with Suchet or Soult. On the 12th of August the allied army entered the capital. Aware that their losses had been aggravated by a want of concert, the commanders of the French forces now co-operated in order to retrieve them. On the 24th of August, Soult relinquished the siege of Cadiz, and began to evacuate Andalusia, for the purpose of uniting his forces with those of king Joseph and Suchet. On the 1st of September lord Wellington quitted Madrid, and advanced to Valladolid, the enemy retiring before him across the Puycerga. He pursued them to Burgos, through which city they retired during the night of the 17th, leaving a strong garrison in the castle. Preparations were immediately made for besieging this important place; but the heavy artillery had not arrived, and the uncertain process of sapping and storming failed. On the 21st advices were received, that an army of 70,000 men, under the direction of Soult, Suchet, and the new king, were fast approaching the passes against general Hill, whose force was inadequate to oppose them. This induced lord Wellington to raise the siege of Burgos, to retire towards the Douro, recall his troops from Madrid, and direct general Hill to proceed northward. He moved upon Salamanca, where he hoped to establish himself; but Soult advancing from Madrid, and uniting his forces with Souham, obliged him to continue his retreat. On the 24th of November he fixed his head-quarters at Freynada, on the Portuguese frontier, after a masterly retreat before an army of 90 000 men, against which he could oppose only 52,000.

The Spanish extraordinary cortes on the 18th of March completed the great work which had so long employed their labors, by the public signature of the constitutional act. Deputies from all parts of the kingdom were present at this ceremony. A commission was appointed to carry the instrument thus signed to the regency; and on the 20th all the deputies assembled in the hall of congress to swear to the constitution; after which the regency entered the hall, and took the oath of office.

Almost from the commencement of the year 1812 the attention of Europe had been directed towards a new scene, which was opening in the north. The emperor Alexander, indignant at the ruin of the trade of his empire, disdained any longer to submit to the restraints of a system, which, though planned solely for the impoverishment of Great Britain, was highly injurious to his subjects. The overthrow of this system was evidently also the interest of Sweden and Prussia: but the resources of Sweden were inconsiderable, and Prussia was in vassalage to France. Russia was the only power that could take the lead in an attempt of that nature, in which, however, she was certain of being supported by Great Britain.

Whatever might be the views of the emperor of France, he began very early in the spring of this year to move numerous bodies of troops into Germany. The Russian monarch, in the mean while, prepared to meet the impending storm; and after issuing a declaration of war, put his armies in motion, and by an imperial ukase, dated the 23rd of March 1812, ordered a levy of two men in 500 throughout his extensive dominions. In the mean time great numbers of French troops joined by the contingents of the Rhenish confederation, proceeded towards the Vistula. The French concluded treaties of alliance with Prussia and Austria; the emperor of Russia concluded also a treaty of peace with the Ottoman Porte, and all matters of dispute were settled between Russia and Great Britain. Such were the preparations for the decisive contest which was destined to produce events wholly unparalleled in history. On the 8th of May the French emperor, accompanied by his empress Maria Louisa, set out from Paris, and, on the 11th of that month, arrived at Mentz.

On the 29th of May the emperors of France and Austria departed from Dresden: the former towards the Vistula to take the command of his army, the latter returned to Vienna. The king of Prussia, who had attended at the interview, left that city on the following day: the empress of France, after remaining a few days at Dresden, returned to Paris.

On the 6th of June Napoleon passed the Vistula, announcing his determination of restoring the kingdom of Poland. He, however, attempted to the last to bring the Russian monarch into his views by negociation: but the latter, adhering to his former declaration, made by prince Kurakin, insisted on the evacuation of Prussia by the French troops.

At two o'clock in the morning of the 22nd of June the emperor Napoleon, accompanied by a general of engineers, inspected the banks of the Niemen. The different corps commanded by the viceroy of Italy, and prince of Eckmuhl, the duke d'Elchingen, the duke de Reggio, the duke of Tarentum, and the prince Poniatowski, made corresponding movements; and the pontoon train arrived. The fifth, seventh, and eighth corps, commanded by the king of Westphalia, had proceeded no farther than Novogorod, about half way between the Vistula and the Niemen; and the first Austrian corps, under the prince Schwartzenberg, was near Lublin, at an almost equal distance between Lemburg and Warsaw. The duke of Belluno, with the 9th corps and some other troops, remained in reserve.

At this crisis a Polish diet was held at Warsaw under the sanction of the French emperor, which, resolving itself into 'a general confederation of Poland,' published on the 1st of July a memorable declaration, announcing that the kingdom of Poland and the Polish nation were re-established, and appointing a council of state, consisting of eleven members, for the administration of affairs.

The plan which the Russians had formed, and according to which they resolved to conduct the present campaign, was, to resist the progress of the invader at all points where a stand could be made without risking a general engagement; to lay waste the country through which he should penetrate; to harass him as he advanced, and to cut off his supplies. Napoleon advanced rapidly to Wilna, the capital of Russian Poland, which he entered on the 28th of June; but a division of the French army under Macdonald received a severe check from general Essen, to whom the defence of Riga was entrusted. Count Witgenstein also defeated marshal Oudinot and the Bavarian general Wrede, at Polotsk, after a conflict of twelve hours.

The emperor of France directed his attention to the main Russian army, which, on the 17th of August, he attacked at Smolensko. After a furious contest the Russians retired from the city, which the French, on their entrance, found burning. Napoleon gave vent to his chagrin by exclaiming,—'Never was a war prosecuted with such ferocity. These people treat their own country as if they were its enemies!'

The Russian army now retired upon Viasma, and this place the French entered on the 30th of August: they did not advance till the 4th of September. The interval of preparation, however, was no longer than was necessary for a conflict between two armies, each amounting to more than 120,000 men. It commenced on the morning of the 7th of September, by a tremendous attack on the Russian left, against which nearly one-half of the French force was directed; while marshal Ney bore down on the centre, and Beauharnois assailed the right. Kutusoff finding that his left, after a combat of three hours, was giving way, reinforced it with grenadiers and cavalry from the reserve, when a desperate effort was made to recover the lost position, from which the French were at length driven. Beauharnois made repeated efforts to carry the village of Borodino and the redoubts which covered it, but he was ultimately repulsed with great loss. The Russians were then enabled to reinforce their centre, where the battle raged with great fury until night, when the French withdrew at all points, leaving them masters of the field. They estimated their own loss at 40,000 in killed and wounded, and that of the enemy at 60,000.

After this dearly purchased victory Kutusoff found himself unable to make head against the fresh troops which his antagonist was enabled to bring forward. He therefore ordered Moscow to be evacuated, and retired with his army beyond it. The painful but necessary measure of withdrawing from their homes in Moscow 200,000 human beings of both sexes, and of every age, was carried into effect by count Rostopchin, who placed himself at the head of 40,000 of its inhabitants, and proceeded to join the army. Rostopchin had a villa in the neighbourhood of Moscow, to which he set fire with his own hands.

The advanced guard of the French, under Murat and Beauharnois, entered Moscow on the 14th of September, and soon overpowered the small band which had lingered in the Kremlin, the ancient palace of the czars. The deserted city was discovered to be on fire in several places; and the French soldiers, eagerly seeking their long-promised plunder, rather increased than checked the conflagration. Napoleon was waiting at the barrier on the Smolensko road, to receive the homage of the constituted authorities ere he made his triumphal entry. A Polish general, whom he sent to remind the citizens of their duty, returned with information that there were no authorities, and that Moscow would soon be a heap of ruins. The conqueror entered without parade on the following day, and took up his residence in the Kremlin 'I ventured, into the midst of the flames,' he said to O'Meara, 'and had my hair and eye-brows singed, and my clothes burned off my back; but it was in vain, as they had destroyed most of the pumps, of which there were above 1000: out of all these, I believe that we could only find one that was serviceable. Besides, the wretches that had been hired by Rostopchin ran about in every quarter, disseminating fire with their matches, in which they were but too much assisted by the wind. This terrible conflagration ruined every thing. I was prepared for all but this: it was unforeseen; who would have thought that a nation would have set its capital on fire?'

This event was evidently a severe disappointment to the French emperor, who lingered about this devoted city as if it had still been his intention to retain it. At length, however, the unshaken resolution of the Russians to persist in their system of making all sacrifices rather than submit; the assemblies of fresh bodies of their troops around Moscow, and the approach of inclement seasons, reminded him of the necessity of a prompt retreat. Urged by the clamors of his soldiers, he sent Lauriston with a flag of truce to the Russian head-quarters, announcing his readiness to treat. The answer returned was, that no terms could be entered into while an enemy remained in the Russian territory.

The roads leading to Moscow were now occupied by detached corps, who cut off the supplies, and dispersed the straggling parties of the French.

Napoleon sent Lauriston a second time to demand, that the Russian general would forward a letter to the emperor Alexander. 'I will do that,' replied Kutusoff, 'provided the word *peace* is not expressed in the letter. I would not be a party to such an insult on my sovereign, by forwarding a proposal which he would order to be instantly destroyed. You already know on what terms offers of peace shall be attended to.' Napoleon soon afterwards announced his intention of leading his army into other provinces until the return of spring, when he would advance on St. Petersburg, and erase the name of Russia from the list of European nations. He then indulged his soldiers with an eight days' pillage of Moscow, and commenced his retreat, leaving a force to blow up the Kremlin. General Ilievasky, however, arrived in time to prevent the completion of this outrage.

Dividing his forces, Murat and Beauharnois, with 50,000 men, were ordered to attack the grand army of the Russians under Kutusoff; while the emperor himself, with the remainder, took the route to Minsk. The former met with a severe repulse, and nothing was now thought of but how to quit the country. Scarcely could they hazard a march without a battle. A stand was attempted at Viasma, but without success; and the French, dispirited and weary, were driven from their positions with great slaughter. The ensuing night was rendered dreadfully memorable by a prodigious fall of snow; and from this period ensued a series of terrible disasters.

'I was a few days too late,' says Napoleon; 'I had made a calculation of the weather for fifty years before, and the extreme cold had never commenced until about the 20th of December, twenty days later than it began this time. On the march the thermometer sunk eighteen degrees, and consequently nearly all the horses perished. In one night I lost 30,000. The artillery, of which I had 500 pieces, was in a great measure obliged to be abandoned. Parties, when sent out on duty in advance, abandoning their posts, went to seek the means of warming themselves. They separated in all directions, became helpless, and fell an easy prey to the enemy. Others lay down, fell asleep, and a little blood came from their nostrils, and sleeping they died. In this manner thousands perished.'

Napoleon reached Smolensko on the 9th of November, and remained there until the 15th, when he set out for Krasnoi. Davoust, who followed him, after blowing up the ramparts, was beaten by Milarodavich on the 15th, and escaped with the loss of 4000 killed and wounded, and 9000 taken prisoners, with seventy pieces of cannon. He also lost the whole of his baggage, three standards, and his bâton de maréchal. Ney, who left Smolensko with the rear-guard on the day of battle, was surprised by the victorious Russians, and compelled to fly with a small proportion of his staff, leaving 11,000 of his troops in the hands of his pursuers. In the mean time the Russian general Witgenstein advanced from Polotsk, and on the 8th of November reached Vitepsk, where he was informed of the retreat of the grand French army. On the 18th he was informed of the flight of the Austrian and Saxon auxiliaries, and of the rapid advance of the Russians. The whole force of the empire was now directly co-operating against the retreating enemy.

To secure his escape, Buonaparte ordered two bridges to be thrown over the Beresina at Studenzi and Vaselova. Scarcely had he passed the river with his guard, at the latter point, when Witgenstein opened a cannonade on the troops who were preparing to follow. They rushed in crowds towards the bridge: it was blown up by Napoleon's order. A shout of despair followed the explosion. Numbers plunged into the stream and disappeared amidst the floating masses of ice; 5000 lost their lives, and 13,000 were taken prisoners. The artillery, baggage, and ammunition, fell into the hands of the Russians.

Having repaired the bridges the Russian armies advanced, and on the 12th of December prince Kutusoff established his head-quarters at Wilna. The retreat of the French from the Beresina to the Niemen was attended with horrors to which no parallel can be found in the annals of the world.

Napoleon did not remain to witness the last scene of the tragedy. He reached Wilna on the 7th of December, and, having appointed Murat to the chief command, departed for Warsaw, accompanied by Caulincourt; whence he made a rapid journey to Paris. He was the herald of his own discomfiture; and proclaimed with circumstantial precision the results of a campaign which did equal credit to his foresight as a politician, and to his skill as a general. The wars of modern Europe had furnished no instance of so extensive and complete a destruction.

The destruction of the French army was made known to the people of England while engaged in the ferment of an election, and the new parliament assembled, on the 24th of November, 1812, under the happiest auspices. On the 30th the prince regent delivered, for the first time, a speech from the throne, containing a triumphant review of the political and military events of the year. A grant of £100,000 was voted to the duke of Wellington, and £200,000 for the relief of the sufferers in Russia.

After the Christmas recess, the attention of parliament was called to the origin and causes of the war between this country and the United States. After refuting the various charges adduced by the American government against that of Great Britain, ministers ascribed the origin of the contest to that spirit which had long actuated the councils of the United States, and which had induced them with marked partiality to palliate and assist the aggressive tyranny of France.

The annual discussion of the Catholic claims commenced on the 25th of February, with a motion by Mr. Grattan for referring them to a committee of the whole house, which was carried by 264 votes against 224. On the 30th of

April Mr. Grattan introduced a bill for the removal of the Catholic disabilities, which encountered little opposition in the first and second reading; but, on its passage through a committee, Mr. Abbot, the speaker, objected to that clause by which Catholic gentlemen were permitted to sit in parliament. The clause was rejected by a majority of 251 against 247, and the bill was abandoned.

On the 5th of May a measure was instituted for extending the provisions of the toleration act, by granting 'further relief to persons differing in opinion from the church of England, with respect to certain penalties imposed by law on those who impugn the doctrine of the Holy Trinity.' The bill introduced for this object by Mr. William Smith was read a third time in the house of lords, on the 30th of July, when the archbishop of Canterbury, and the bishop of Chester, disclaiming all intention of opposing it, observed, that it had not been called for by any attempt to impede the worship of Unitarians, or inflict penalties upon them.

Lord Castlereagh brought forward, in a committee of the whole house, his plan of regulation, including the prolongation of the East India Company's charter for the further term of twenty years from the 10th of April, 1814. The first resolution moved by this minister secured to the Company all its Indian territories north of the equator, with the exclusive trade to China; leaving the commerce of Hindostan open to the public on certain conditions, and to certain ports, by license from the company. An ecclesiastical establishment was also founded in India, consisting of a bishop and three archdeacons; and a wide scope was given to the zealous efforts of missionaries. The dividends of the company were limited to 10½ per cent., and the number of king's troops to be paid by the company was restricted to 20,000, unless a larger force was required by the directors.

On the subject of finance an important measure was proposed by Mr. Vansittart on the 3rd of March, in a committee of the whole house. By the original constitution of this fund, the stock purchased by the commissioners was not cancelled, but considered to be their property; and the interest was regularly applied by them to the further discharge of the debt. This arrangement, securing an accumulation by compound interest, was now abolished; and the whole stock purchased by the commissioners, which was now stated at £238,000,000, an amount exceeding that of the national debt when the fund was instituted, was to be cancelled, and the interest become disposable for current services: £867,963 was at the same time proposed to be added to the sinking fund. It was also proposed, that, when the new loans should in any year exceed the amount of the sinking fund, a new fund of 2½ per cent. instead of 1 per cent. should be created to provide for that surplus.

The treaty with Sweden was laid before parliament on the 11th of June; from which it appeared, that, in the recent convention between Russia and Sweden, the emperor Alexander had not hesitated, when his own interests were at stake, to engage that Norway, which had been for ages united in a federal league with Denmark, should be transferred to Sweden in compensation for Finland. To this compact Great Britain also had by the present treaty become a party.

The campaign of this year in Spain commenced with an attack of Suchet's (13th of April) on the line of the allies; in which, however, he was repulsed. Before the end of May lord Wellington moved in great force by the route of Salamanca towards Madrid, the new king once more evacuating the capital. On the approach of the British, the enemy continued his march towards the Ebro. The allies, by a sudden movement to the left, having crossed that river near its source, found the French encamped in front of the town of Vittoria, under the command of Joseph Buonaparte and marshal Jourdan, Soult having been summoned to the aid of Napoleon. On the 21st of June lord Wellington resolved upon attacking them. The battle began with a severe contest for the heights of Arlanzon, on the left of the French. These being at length carried by general Hill, he passed a rivulet which ran through the valley, as did general Picton at the head of another division. Nearly at the same time general Graham on the opposite wing forced his passage over two bridges thrown across the stream; on which, after a severe contest, the whole French army retreated in good order on Vittoria; whence they continued their march toward Pampeluna. A great number of cannon, and stores of all kinds to a vast amount, now fell into the hands of the allies, and the retreat of the French became so rapid as not to permit them to carry off their baggage: 151 pieces of cannon, and 415 waggons of ammunition, fell into the hands of the victors.

The centre of the French retreating army having still maintained itself on the Spanish side of the frontier, general Hill made an attack upon them with a combined force of British and Portuguese, and obliged them to withdraw into France. Marshal Soult joined the army on the 13th of July. On the 24th he collected his right and left wings, and a part of his centre, at St. Jean Pied de Port, to the amount of 30,000 or 40,000 men; and made an attack on an English post at Roncevallos, in which he succeeded, and other posts were consequently withdrawn. Various operations of attack and defence were now carried on during some days. The siege of St. Sebastian had, in the mean time, been proceeding under the conduct of Sir Thomas Graham; and an unsuccessful attempt to storm had been made on the 25th of July, which occasioned a severe loss. On the 31st of August another attempt was undertaken by order of lord Wellington, which, though attended with peculiar and unseen difficulties, succeeded, at the cost of 2300 in killed and wounded.

On the 7th of October lord Wellington entered France, by crossing the Bidassoa at different fords. The strong fortress of Pampeluna, which had been blockaded from the time of the battle of Vittoria, was induced to accept of a capitulation on the 31st. Lord Wellington now put in execution a plan which he had projected to force

the centre of the enemy, and establish the allied army in the rear of their right. The attack was made on the 10th of November, and, after a variety of actions which occupied the whole day, the purpose was attained. The French during the night quitted all their works and posts in front of St. Jean de Leon; and, being pursued on the next day, retired to an intrenched camp in front of Bayonne. On the 9th of December the river Nive was crossed by a part of the allied army; and on the four following days several desperate attacks were made by the French during the completion of this passage, which were finally repelled, and the enemy, after great loss, withdrew to his intrenchments. The British and Portuguese, during these days, lost between 4000 and 5000 in killed, wounded, and missing. The year closed with lord Wellington's obtaining a firm footing on the French territory.

In the north of Europe the Prussians, as allies to the French, had acted chiefly on the coast of the Baltic. On the retreat of marshal Macdonald from that place, the Russian general Witgenstein, advancing along the Niemen, succeeded in cutting off from the marshal a body of Prussians of about 15,000 men, under the command of general D'Yorck, who entered into a convention, by which he agreed to remain neutral.

Witgenstein, pursuing Macdonald, entered Konigsberg on the 6th of January. Elbing, Marienburg, and other towns in that quarter, were deserted by the French and occupied by the Russians. At Konigsberg a regency was established in the name of the king of Prussia, which issued a proclamation, calling on the people to come forward for the rescue of their prince and country from French bondage; and a number of young men joined the troops under D'Yorck, who had been declared commander-in-chief of the patriotic army. The king himself in the end of January suddenly removed to Breslau. His purpose was become so manifest, that the viceroy of Italy, Eugene Beauharnois, then at Berlin, forbade recruiting in that capital.

The emperor of Russia had now put himself at the head of his main army; and on the 22nd a treaty of alliance, offensive and defensive, was concluded between Prussia and Russia. The two sovereigns had an interview at Breslau in March, from which city the king of Prussia issued a proclamation to his subjects, touching upon the motives which had induced him to join his arms to those of Russia.

On the 3rd of March the French troops evacuated Berlin, which was entered by the Russians on the following day. General Morand, who had occupied Swedish Pomerania with a small body of troops, now followed the French main army, joined by those who had left Hamburg, which city was entered by the Russian general Tettenborne on the 18th. The king of Saxony had quitted Dresden on the approach of the Russians, a corps of whom took possession of the part of the city on the right bank of the Elbe. A Swedish force advanced to Stralsund; and in April Thorn surrendered to the Russians. Napoleon, with unabated activity and confidence, was at this time busily employed at Paris in mustering all the force of the great dominion of which he was still master, for a powerful effort. By a senatus consultum, of the 11th of January, 350,000 men were placed at his disposal. He caused the empress to be declared regent during his absence, published a flattering exposé of the state of the French empire; and, having thus reanimated the spirits of the nation, he on the 15th of April set out for the army.

The march of the divisions was directed so as to form a junction near Jena and upon the Saale. The allied armies of Russians and Prussians had for some time been concentrating near Leipsic. The French having crossed the Saale, a junction was made of the Russians and Prussians between Leipsic and Altenburg, the sovereign of each being present with his troops. On the 2nd of May a general engagement occurred at Gross Groschen, near the plain of Lutzen, of which the result, after much slaughter, was, that the allies kept the field. The consequences, however, were, the subsequent advance of the French to the Elbe, which they crossed at Dresden and Meissen. The king of Saxony at this time joined his forces to those of France. The advance of the French divisions, through Silesia towards the Oder, met with no effectual resistance, and on the 1st of June Lauriston entered Breslau

While these things were transacting, Sweden acceded to the league against France. The French emperor was not insensible of the dangers that were now accumulating round him. He consequently, through the medium of Austria, transmitted to the emperor Alexander proposals for an armistice, preparatory to a congress to be holden at Prague. The armistice was mutually ratified on the 4th of June, and the negociations at Prague proceeded: and a prolongation of the armistice took place, which carried it to the 10th of August. All Germany in the mean time resounded with preparations for war. The armistice at length terminated; and on the 11th of August count Metternich, the Austrian minister at the congress of Prague, delivered to the French minister a declaration of war on the part of his court. The plan of the allies now was to drive back the French from their forward position on the right bank of the Elbe, and in Lusatia and Silesia, by attacks on their front and flank; and after various actions they so far succeeded, that on the 26th the advanced guards of the allies encamped on the heights above Dresden. During several months their engineers had been occupied in adding to the fortifications of the place, and Napoleon was within the walls with a force estimated at 130,000 men; it therefore seems to have been an injudicious measure on the part of the allies to make an attempt for carrying it. This, however, was attempted on the 27th, and, though conducted with undaunted valor, was repulsed with a great loss of men. On the following day Napoleon led out his troops, supported by an immense artillery, to the attack of the allies. One of the incidents of the bloody action which ensued was a mortal wound received by the celebrated general Moreau, who had left his retreat in America to join the party whose cause he considered as that of public liberty. At the conclusion of a most severe combat the

allies retired, followed by a large division of the French army, which received an effectual check in an action in which general Vandamme was taken prisoner with 10,000 men. The allies now beat back the French, and the crown-prince of Sweden joined in their operations. Silesia and Saxony were entered by the Russians and Prussians; the Austrians advanced from Bohemia; and at length the French measured back their steps to the Elbe. At this period an important accession was made to the strength of the allies by a treaty between Austria and Bavaria, in virtue of which 55,000 Bavarian troops were to act in conjunction with the Austrians. A stronger proof could not be given of the general concurrence of Germany to throw off the yoke of Napoleon.

After various partial encounters and bold efforts to surround the French, a most sanguinary engagement took place on the 16th of October, which, after much slaughter, left the opposing armies in nearly the same position they held at its commencement. The 17th passed chiefly in preparation for the great action of the next day, which was directed upon the town itself. At its conclusion the French had lost 40,000 men in killed, wounded, and prisoners, with sixty-five pieces of cannon. The engagement was still raging when seventeen battalions of Westphalian and Saxon troops, the latter bringing with them twenty-two pieces of cannon, deserted to the allies, and, ranging themselves under the standard of the crown-prince of Sweden, requested to be led against the French. This was decisive of the event; and it demonstrated the extravagance of that policy, which could transform the circles of Germany into provinces of the French empire. The victorious army remained that night on their ground. On the morning of the 19th the king of Saxony sent a flag to the emperor Alexander, entreating him to spare the town; but, it being regarded as a feint to gain time, an assault was ordered. Leipsic was carried after a short resistance, and the allies entered two hours after Napoleon had made his escape. The king of Saxony with all his court, the French garrison, with the rear guard of 30,000 men, and the sick and wounded computed at 22,000, with the magazines, stores, and artillery, were taken in the city. No success could be more complete. Immense magazines were found in Leipsic.

The king of Wirtemberg, imitating the example of Bavaria, now renounced the confederation of the Rhine, and united his troops with those of the allies. But that which was of more consequence, and less to be expected, was the revolution which at this time took place in Holland. On the 15th of November the people of Amsterdam, as it were by one consent, hoisted the Orange colors, and amidst enthusiastic shouts proclaimed the restoration of the ancient government. A change now unavoidably took place in the Danish councils; and Frederick VI., as his only resource, concluded a treaty with Great Britain and Sweden. It was signed at Kiel on the 14th of January 1814, agreeably to which Swedish Pomerania was ceded in exchange for Norway. England retained possession of the fleet which she had so dearly purchased, and 10,000 Danes joined the army of the crown-prince. In the south of Germany the arms of Austria had during this interval been no less successful. In October general Hillier crossed the Alps with an army of 60,000 men; and Trieste, Fiume, with the whole Dalmatian coast, were reduced, in which the English force in the Adriatic materially assisted.

On the retreat of Napoleon from Leipsic, the French troops left in Dresden under the command of marshal St. Cyr were augmented by fugitives from Vandamme's army, but they were soon reduced to a wretched condition by disease and want. On the 12th of November they surrendered as prisoners of war, to the amount of more than 40,000 men. In the same month the French garrisons in Stettin and its forts also capitulated, on the same condition, to the number of 7000 or 8000. An Austrian army entered Switzerland, with a declaration that its neutrality could not be permitted by the allied powers. At Bern the ancient government of the canton was restored. Geneva was afterwards occupied by the allies; and the Austrians, advancing to Basle and Schaffhausen, crossed the Rhine, and proceeded to the French frontier. They also passed that river at other parts, and spread in Alsace and Franche-Compté. France was now completely in a state of invasion.

On his return to Paris Buonaparte caused the senate to pass decrees for levying 300,000 men, and for doubling the public contributions. The unfortunate war between Great Britain and the United States of America in this year was productive of a variety of events, though for the most part on a small scale.

The temper of the government of the United States, at the commencement of the year, rendered it evident that nothing could prevent extremities with Great Britain. The spring passed away in the discussion of various measures of preparation by the congress, in which the war party displayed a manifest preponderance. An act for an embargo on all the shipping of the United States, for the term of ninety days from its date, passed the congress in the beginning of April, the purpose of which was to expedite the fitting out of the American ships of war, and to prevent any more pledges from remaining in the power of an enemy on the commencement of hostilities. Efforts were still made by the moderate party to retard a breach; and on the 29th of May Mr. Randolph brought the matter to a decision, by moving in the house of representatives a resolution, 'that, under the present circumstances, it is inexpedient to resort to a war with Great Britain.' This was negatived by sixty-two votes against thirty-seven.

The result of the subsequent discussions in congress was an act passed on the 18th June declaring the actual existence of war between the United States and Great Britain. This determination was carried in the house of representatives by a majority of seventy-nine against forty-nine.

Their operations against Canada commenced early in July 1812. General Hull entered the province of Upper Canada above Fort Detroit, and issued a proclamation to the Canadians, in a style of great confidence. He proceeded against

Fort Malden, but was foiled in his attempts to invest it; and retired to Detroit. Hull was there besieged in his turn, and on the 16th of August entered into a capitulation, by which he surrendered the fort, with 2500 men and thirty-three pieces of ordnance. The plan for the invasion of Canada, however, was by no means renounced; a considerable American force being assembled in the neighbourhood of Niagara, general Wadsworth, on October 13th, made an attack upon the British position of Queenstown. General Brock, who hastened to its defence, was killed while cheering on his men, and the position was for a time taken; but a reinforcement being brought up, by major-general Sheaffe, the Americans were defeated, and general Wadsworth, with 900 men, surrendered himself prisoner on the field.

These disgraces to the American arms by land were in some degree compensated by their successes at sea. Their navy consisted of a few frigates, of a rate corresponding to the largest British, but in size, weight of metal, and number of men, nearly equal to ships of the line. Hence, when encountered by British frigates, the latter found themselves, as it were, surprised into a conflict with antagonists of superior force. The first action of this kind took place on August 19th between the English frigate Guerriere, captain Dacres, and the American frigate Constitution, captain Hull, in which the former, being soon totally disabled by the enemy's very superior fire, was obliged to strike. The injury she had received was so great, that the captors set her on fire. On October 25th the Macedonian, English frigate, captain Carden, descrying a large frigate under American colors, bore down, and an action ensued which was continued with great bravery for more than two hours; when the English ship being reduced to the condition of a perfect wreck, and having incurred a heavy loss of men, to save the rest it was found necessary to surrender. Her antagonist proved to be the United States, commodore Decatur, ranking as a frigate, with the scantling of a seventy-four gun ship. In an action between two sloops of war the advantage also was on the American side; and these events, so unusual to the British navy, though easily to be accounted for, were the source of as much mortification to one party, as triumph to the other. Numerous captures made by the American privateers, among the West India islands, gave rise to complaints from the merchants and planters of Jamaica. Such were the principal circumstance of the first year of the American war.

The lakes of Canada now became the most active scene of warfare, and a number of spirited actions took place on the coasts and waters which we cannot detail.

The enterprising spirit of the British navy was displayed, not only in occasional attacks on the towns situate on the American coast, but also in some contests with the enemy's vessels of war. —His majesty's frigate the Shannon, captain Broke, stationed off the port of Boston, had been brought to a state of the most perfect discipline by her commander, who assiduously exercised his men in the use of great and small arms. On the 1st of June captain Broke stood close in with the Boston light-house, by way of a challenge to the United States' frigate the Chesapeake, a fine ship of forty-nine guns, full manned. The American accepted the proffered combat, and, standing out of the harbour, confidently bore down on his foe. The ships were soon in close contact, when captain Broke, perceiving a favorable opportunity, gave orders to board the Chesapeake, himself setting the example. The conflict was severe, but short: in two minutes the American's decks were cleared, her colors were hauled down, and the British flag hoisted over them; and she was led away in triumph, in the sight of a number of the inhabitants of Boston, who witnessed the action, and were expecting her victorious return.

As Great Britain was deeply interested in giving timely and efficient aid to her allies at this great crisis, parliament assembled for the despatch of business so early as the 4th of November, when it was opened by the prince regent in a speech from the throne. Its topics were chiefly the new alliances against the power of France, together with their successes, and the war with America.

A loan at this early period of £22,000,000, proposed by the chancellor of the exchequer, received the accustomed sanction of the house; and the foreign subsidies moved by Mr. Vansittart passed without a dissentient voice.

Blucher, who beside the grand Prussian army had under his command some Russian and Saxon divisions, commenced the new year 1814 with an invasion of the French empire. General Bistram had led the way, and, having forced the entrenchments near the Lahn, he crossed the Rhine, and took possession of Coblentz. Baron Sacken passed over near Manheim, and count Langeron near Bingen; and in three days they killed or took prisoners 1500 men. They were received with joy by the people; and marched to the Moselle, and the Marne, without any formidable opposition.

The Austrian army, strengthened by Russian, Bavarian, and Wirtemberg divisions, invaded Alsace, under the direction of the prince of Schwartzenberg, and, while he was making arrangements to co-operate with Blucher, the emperor Alexander and king of Prussia crossed the Rhine near Basle, with their respective bodies of reserve.

Napoleon being informed that marshal Mortier had been attacked at Bar-sur-Aube, and compelled to retreat, dexterously contrived to convert this disaster to his own purpose, by affirming that the French were victorious. On his approach to St. Dizier, which the Prussians had seized, he ordered that village to be assaulted; and, as it was occupied by only a small force, it was retaken without difficulty. This trivial exploit was also extolled in his usual style.

Other trials of strength and courage quickly, however, followed. On the 1st of February prince Blucher, having received a reinforcement from the prince of Schwartzenberg, advanced with about 75,000 men, and engaged a nearly equal number of the enemy at La Rothière. That village formed the centre and the key of

the French position: the right wing was stationed at Dienville, and the left at Chaumenil and Giberie. The prince of Wirtemberg, on this occasion, strenuously contended with marshal Victor; drove him from the left, was dislodged in his turn, but recovered and maintained the post. Count Guilay attacked the right, but could not force it before midnight. Sacken's movements were directed against the centre, and with great difficulty and loss he expelled the enemy from La Rothière, which he defended against a personal attempt of the French emperor for its recovery. The French, after a considerable loss, made a retrograde movement towards Troyes and Arcis.

The Austrian and Prussian armies now continued their advance towards Paris, prince Schwartzenberg proceeding along the banks of the Seine, while Blucher chiefly guided his course by the Marne. General D'Yorck overtook the rear-guard of Macdonald's army, and gained such an advantage as led to the capture of Chalôns. Napoleon having retreated to Nogent, the prince of Wirtemberg took possession of Troyes and Sens.

Alarmed at the progress of Blucher, whose troops were within three marches of the capital, Napoleon resolved to make a bold attempt to save it. He attacked and defeated at Champ-Aubert the division of general Alsufieff, too distantly situate to be assisted. General Sacken now advanced; and his division, aided by that of Yorck, fought with obstinacy at Montmirail, but with doubtful success.

Blucher, when apprised of the advance of Marmont, determined on attacking that general at Etoges; recalled by this movement, Napoleon encouraged Marmont to face his adversary at Vauchamp. The battle which ensued on the 14th of February was almost entirely a contest between the French cavalry and the allied infantry, and Blucher found a retreat expedient.

Napoleon, elated with his success, now turned his arms with redoubled confidence against the prince of Schwartzenberg, who had sent detachments within forty miles of Paris. Count Witgenstein was also attacked at Nangis, by a force which he was too weak to withstand. Three attacks were made on the army which occupied Montereau and its vicinity, and all were repelled by the prince of Wirtemberg; but a fourth assault compelled him to retreat.

Blucher, now sensible of the danger of a march not sufficiently connected with the Anstrian army, moved from Chalôns with 55,000 men, with a view to a more effectual co-operation with it.

At this juncture (1st of March) a new treaty of alliance and subsidy was signed at Chaumont, by lord viscount Castlereagh, the representative of England, with prince Metternich, count Nesselrode, and baron Hardenberg, the ministers of Austria, Russia, and Prussia. Negociations with Napoleon were opened at Chatillon, but his ultimatum was peremptorily rejected.

Napoleon now crossed the Aisne, and attacked the left wing of the allies with such vigor as to make a considerable impression; the consequence was a retreat to Laon. In the front of that town Blucher concentrated his army, which considerably exceeded that of the French. Bulow occupied the town and an adjacent conical hill. The corps of Winzengerode, Sacken, and Langeron, formed the right; and the left positions were defended by Yorck and Kleist. Napoleon, having failed in an attack on this position, now retired to Soissons.

In the south-west of France lord Wellington resumed offensive operations by the seizure of Orthes, and the whole British army passed the Adour, when the citadel of Bayonne was closely invested.

On the 12th of March the important city of Bourdeaux was occupied by a detachment under the command of marshal Beresford. This event was the result of a counter-revolutionary movement, favored by the mayor and principal inhabitants, who, mounting the white cockade, declared for the Bourbons. The duke d'Angouleme, nephew to Louis XVI., entered Bourdeaux with the British troops. Lord Wellington then marching against Soult, the latter proceeded to Tarbes, from which place he was driven with considerable loss.

We left Napoleon making his second advance against Blucher, whose army (3rd of March) effected a junction with Winzengerode and Bulow at Soissons. On the 9th he repulsed Napoleon, who, after a severe action on that and the following day, retreated at all points, with the loss of forty-eight pieces of cannon, and between 5000 and 6000 prisoners. This success induced Schwartzenberg again to advance, and the Austrian and French armies now made a desperate struggle for the possession of Vitry. Napoleon, however, took the road to St. Dizier with his whole army, his plan being, as discovered by an intercepted letter, to push between the two allied armies. The discovery of his intentions produced an immediate determination of the allied generals to unite their forces, and march to Paris.

On the 27th of March the grand allied army had its head-quarters at Coulomier. On the following day Blucher passed the Marne at Meaux. On the 29th the corps of Marmont and Mortier entered Paris, in which there had been previously assembled a body of regular troops, with 30,000 national guards.

The allies were posted with their right towards Montmartre, and their left towards the wood of Vincennes, when prince Schwartzenberg addressed a proclamation to the people of Paris, in which, acquainting them with the presence of the army of the allies before their city, whose object was a sincere and lasting reconciliation with France, he said, 'The attempts hitherto made to put an end to so many calamities have been fruitless, because there exists in the very power of the government which oppresses you an insurmountable obstacle to peace.'

But the fate of the French emperor was not to be decided without another struggle. On the 30th of March, the French army, under the command of Joseph Buonaparte, assisted by marshals Marmont and Mortier, took a position on the heights near Paris, in a long line, the

centre of which was protected by several redoubts, and more than 150 pieces of cannon. An attack was immediately determined on by the allies, and it was commenced by the two princes of Wirtemberg. After an obstinate resistance the heights were carried: the success of the day, however, was for some time retarded by an accident which delayed the advance of Blucher; but at length the positions gained by the allies, and the losses of the French, induced the latter to send a flag of truce proposing a cessation of hostilities. By the capitulation that followed, Paris was evacuated on the morning of the 31st of March by the troops of Marmont and Mortier, carrying with them all their military appurtenances. On the same day the allied sovereigns entered Paris, attended by their guards. The emperor of Russia then issued a declaration, expressing the intentions of himself and his colleagues. It affirmed, that they would no more treat with Napoleon Buonaparte, nor with any of his family; that they respected the integrity of France as it existed under its legitimate kings; and that they would recognise and guarantee the constitution which France should adopt. The senate assembled on the 1st of April, Talleyrand, prince of Benevento, being appointed president. Their first act was to pass a decree for a provisional government, consisting of five persons, the president himself being at their head. By a second decree it was asserted, that in a constitutional monarchy the monarch exists only in virtue of the constitution or social compact. It then proceeds to prove the violation of that compact by Napoleon Buonaparte in various specified articles; and pronounced, 'that he had forfeited the throne, and that the hereditary right established in his family was abolished.'

Napoleon, thus out-manœuvred both in his military and political capacity, moved his army from Troyes by the way of Sens; and, arriving at Fromont on the 30th, retired in confusion to Fontainbleau, whence, on the 4th of April, he sent a deputation to the senate, offering to submit to its decision. The emperor of Russia afterwards proposed to him to name a place which he should choose as a residence for himself and his family, when he nominated Elba, an island lying on the coast of Tuscany. On the 11th of April a treaty was signed between him and the allied powers, by the articles of which he and his spouse Maria Louisa were to retain the imperial title, with the isle of Elba in full sovereignty; the empress likewise was to be put in possession of the duchies of Parma and Placentia, with succession to her son and descendants. A pension of 2,000,000 of francs was assigned to Napoleon from the revenues of France, with the reversion of 1,000,000 to the empress, and 2,500,000 in various proportions to his relatives. To this treaty, however, the British ministry refused its concurrence, farther than respected the assignment of Elba to Napoleon, and of the Italian duchies to Maria Louisa.

The war, however, did not immediately cease. In a contest for the possession of Toulouse much blood was shed: the allies, however, obtained it. In a sortie from Bayonne some loss was also sustained; but these hostilities at length yielded to an armistice. In Italy, an expedition was undertaken by lord William Bentinck early in the spring, whose object was to annihilate the French influence over the Genoese. With the aid of commodore Rowley he reduced the city of Genoa, and left it at the disposal of those powers which were proceeding to a settlement of the affairs of Europe.

Louis XVIII. now repaired to London, and, having received from the good citizens the most gratifying marks of respect, proceeded to Dover, and on the 24th of April embarked in a royal yacht, convoyed by the duke of Clarence. For his reception in France, see FRANCE.

A definitive treaty of peace between France and the allied powers was signed at Paris on the 30th of May 1814. This famous treaty, in conformity to the liberal professions of those powers, was, in respect to France, equitable and honorable; guaranteeing to her the boundaries existing on the 1st of January 1792, with some slight additions of territory on the side of Belgium and Germany, and a considerable portion of Savoy, including Chambery and Annecy. The navigation of the Rhine was declared free; the house of Orange was recognised in its newly assumed sovereign capacity; and the German states were united in a federal league. Switzerland was destined to remain independent; but Italy was once more doomed to receive the yoke of despotism. Great Britain restored her conquests to France, with the exception of Tobago, St. Lucia, and the Mauritius. Malta was confirmed to England; and France engaged to erect no fortifications in India: she also engaged to co-operate with Great Britain in the abolition of the slave trade.

Before the allies reached Paris, the impossibility of preserving Spain had prompted Napoleon to release Ferdinand from captivity; and, trusting to his authority and influence, that prince quietly entered Spain by a different route from that which the regency had recommended, and proceeded to Valencia. Here he issued two decrees stigmatising the existing cortes as illegally framed and composed; and, having condemned the new constitution, dissolved the assembly.

The parliament of Great Britain, which, pursuant to their adjournment, assembled on the 1st of March 1814, again adjourned to the 21st of that month; but the business of the session possessed comparatively little interest.

The war between Great Britain and the United States of America was in this year carried on with an increase of vigor and force, which indicated a serious intention of bringing it to a speedy termination; in fact, that intention was first displayed by measures towards a pacific negociation. On the 7th of January the president communicated to congress copies of letters which had passed between lord Castlereagh and Mr. Munroe, in which the former proposed the appointment of plenipotentiaries to treat on terms of peace, either at London or Gottenburg; which proposal was accepted by the president, who made choice of Gottenburg. Such a step was rendered the more expedient to the American government, by the open opposition to the war manifested in the northern states.

The military operations on the coasts of the southern American states had hitherto been rather of a harassing and predatory kind, than directed to any important purpose; but it was now resolved to strike a blow in this quarter, which might exert an influence on the fate of the war. A large naval force under the command of vice-admiral Sir Alexander Cochrane, having on board a strong body of troops commanded by major-general Robert Ross, was in the Chesapeake the beginning of August, waiting for the arrival of the rear-admiral Malcolm with an expedition from Bermuda. On their junction the admiral was informed, by rear-admiral Cockburn, that the American commodore Barney, with the Baltimore flotilla, had taken shelter at the head of the Patuxent. Of this circumstance they determined to take advantage for ascending the river, with the declared purpose of an attack upon Barney, while their real object was the city of Washington, the American capital.

On the 19th and 20th of August, the army being landed at that place, general Ross began his march to Washington; the force of the Americans for its protection having been ascertained to be such as would justify an attempt to take it by a coup de main. Arriving on the 24th within five miles of the capital, he found the Americans, to the number of 8000 or 9000, strongly posted to dispute his advance. An attack on them was immediately directed; and it was made with so much impetuosity, that they were in a short time wholly dispersed, and the British army reached Washington in the evening of the same day. No time was lost in commencing the work of destruction, which was the main purpose of the expedition. The public buildings, &c. committed to the flames were, the capitol, including the senate-house and house of representatives, the president's palace, the arsenal, the dock-yard, treasury, war office, rope-walk, the great bridge across the Potomac, a frigate ready to be launched, and a sloop of war, in the dock-yard. On the following night a retreat was commenced, and the army, having met with no molestation on its return, was on the 30th reimbarked.

The American president on this issued a proclamation, in which he spoke of the devastation at Washington as a measure of extreme and barbarous severity; and mentioned that the British naval commander on the station had avowed his purpose of destroying and laying waste such towns and districts on the coast as should be found assailable, under the pretext of retaliation for the ravages committed in Upper Canada, though none such occurred but what had been shown to be unauthorised. He then called upon all officers to be alert and vigilant in providing the means of defence.

The negociations for peace, which had been removed from Gottenburg to Ghent, commenced in August 1814; and on the 24th of December a treaty of peace and amity between Great Britain and the United States was signed, which afterwards received a ratification from both governments. The articles of this treaty chiefly related to the disputes respecting boundaries, for the determination of which it was agreed that commissioners should reciprocally be appointed Both parties covenanted to continue their efforts for the abolition of the slave trade. No notice whatever was taken of the circumstances which had occasioned the war.

This year was rendered memorable by a concourse of visitors to the English capital, surpassing in number and rank any modern example. In the beginning of June arrived the emperor of Russia, with his sister the duchess of Oldenburg, and the king of Prussia and his two sons, attended by various persons of high distinction. Prince Metternich, prince Czernicheff, and generals Blucher, Barclay de Tolly, Platoff the hetman of the cossacks, &c., were among the number. The king of Prussia appeared to labor under deep dejection. After a residence of some weeks, in the course of which the sovereigns were magnificently entertained by the city of London, these illustrious guests returned to the continent, much gratified. For the circumstances in France leading to the return of Napoleon, see FRANCE.

When the allied powers had received certain information of Napoleon's descent, they issued a manifesto, dated the 13th of March, in which they declared, 'that Napoleon Buonaparte, by violating the convention which had established him at Elba, had placed himself out of the pale of civil and social relations; and, as an enemy and disturber of the tranquillity of the world, had rendered himself liable to public vengeance.' They therefore announced, without reserve, their determination of uniting their efforts to secure Europe against any attempt which might threaten to replunge it into revolutionary disorders.

Nor was this a mere menace. The declaration was confirmed by a treaty, dated March 25th, which bound each of the four powers to bring 150,000 men into the field, and not desist from their exertions until they should have rendered Napoleon wholly incapable of disturbing the tranquillity of Europe. England was permitted to substitute pecuniary payment for a part of the stipulated force.

The whole of France now seemed to unite in favor of the emperor, who, having mustered his resources (see FRANCE), quitted Paris to meet his enemies for the last time early in June.

The close of the last year had left the whole fortified frontier of the Belgic provinces, on the side of France, occupied by strong garrisons, chiefly of British troops, or of such as were in British pay. From the commencement of the alarm excited by Napoleon's attempt, reinforcements had been unremittingly sent from England, and the duke of Wellington had arrived to take the supreme command of the British and foreign troops. In the latter part of May the Prussian army, commanded by prince Blucher, arrived in the neighbourhood, and frequent conferences relative to co-operation were held by the two generals. The principal French army was at this period posted near Avesnes in Flanders, and preparations for defence against invasion had been made at Laon and the castle of Guise.

On the 12th of June Napoleon proceeded to Laon. In strict conformity with his usual plan

of pushing forward at once to the most important point, he resolved on attacking the British and Prussian armies, whilst the Russians and Austrians were still remote. At the head of a numerous and well-appointed army, composed of the flower of the French regulars, animated with enthusiastic confidence in their leader, at daylight of the 15th he made his first attack on the Prussian posts on the Sambre. Charleroi being carried, general Ziethen retired upon Fleurus, where he was attacked, and sustained considerable loss. Blucher concentrated the rest of the Prussian army at Sombref; and the French, continuing their advance on the road to Brussels, drove back a brigade of the Belgian army, under the prince of Weimar, to the position of a farmhouse named Quatre Bras.

Through some defect of intelligence, the duke of Wellington was not informed of these events till the evening, when he immediately ordered such of his troops as were in readiness to march to the left and support the Prussians. On the 16th Blucher, who was posted on the heights between Brie and Sombref, awaited the attack of the French. The battle raged with great fury from three in the afternoon till late in the evening, when the Prussians, pressed by superior numbers, and receiving no succor, were forced to retire, leaving behind them sixteen pieces of cannon, and a great number of killed and wounded. They however formed again at a short distance, and were not pursued. Their veteran commander made extraordinary exertions, and was brought into imminent personal danger.

Lord Wellington, in the mean time, had directed his whole army to advance upon Quatre Bras, where the fifth division, under general Picton, arrived early in the afternoon of the 16th, and was followed by the corps under the command of the duke of Brunswick and the contingent of Nassau. It was the wish of the duke of Wellington to afford assistance to Blucher; but he was himself attacked by a large body of cavalry and infantry, with a powerful artillery, while his own cavalry had not yet joined. The repeated charges of the French were steadily repulsed, but a considerable loss was incurred, including that of the duke of Brunswick.

Blucher found himself so much weakened by the day's action, that he fell back during the night to Wavre; and this caused the duke of Wellington to retire, on the morning of the 17th, upon Gemappe, and thence to Waterloo, in order to maintain the communication. The chain of heights occupied by the British army, two miles in front of the village of Waterloo, traversed the high roads leading from Charleroi and Nivelle to Brussels, and uniting at the hamlet of St. Jean in the rear of the British position. The results of the battle which followed were so important, and it constitutes in all its details such an example of British military skill and valor, that it merits distinct notice. See our article WATERLOO.

The consternation of Napoleon is said to have been extreme. When he saw the rout become too apparent to be mistaken, he exclaimed to the persons near him, 'It is all over: we must now look to our own safety.' See FRANCE and NAPOLEON.

After the victory, the allies came to the determination of treating with the French only under the walls of Paris. On the 23d lord Wellington sent a detachment against Cambray, which was taken by escalade without much loss; and Louis XVIII. soon after removed from Ghent. The march of the allied army was now one continued triumph.

Blucher met with considerable opposition in establishing himself on the left of the Seine, but he ultimately succeeded; and Paris being now exposed, on its most vulnerable side, a request came for the cessation of hostilities. A convention was concluded on the 3rd of July between prince Blucher and the duke of Wellington on the one part, and Davoust (prince of Eckmuhl) on the other, referring merely to military points. By its stipulation, the French army was on the following day to commence its march for the Loire, and was in three days completely to evacuate Paris; all the posts around the city, and its barriers, were to be given up; the duty of Paris was to be performed by the national guards and the municipal gendarmerie; public property was to be respected, with the exception of what related to war; and all individuals continuing in the capital were to enjoy their rights and liberties, 'without being called to account, either for the situations they may have held, or as to their conduct or political opinions.' This last clause is worthy of observation, because it was afterwards adduced on the trial of marshal Ney as a promise of a general amnesty.

At Paris the chambers continued their sittings until they were closed by order of the military; and on the 8th of July Louis XVIII. once more made his entry into the capital under the most gloomy omens. Its military positions were all occupied by the allied troops. For the sequel of the ex-emperor's history, see NAPOLEON.

Weighed down by mental suffering, and the disorders incident to a tropical climate, he expired at St. Helena on the 5th of May, 1821.

After a long and anxious suspense the congress held at Vienna made publicly known the conditions on which France was permitted to keep her station in the European community. This, however, was definitively settled at Paris, by a treaty signed November 20th, which stipulated that Louis should cede to the allies the important fortresses of Landau, Saar-Louis, Philippeville, and Marienburg, with the duchy of Bouillon. Versoix, and part of the territory of Gex, were yielded to the Helvetic confederacy; the works of Huninguen were dismantled; and France engaged to erect no others within the distance of three leagues from Basle, thus leaving a free passage into the heart of France. Seventeen of the principal towns on the frontiers of French Flanders, Champagne, Lorrain, and Alsace, among which were Conde, Valenciennes, Cambray, &c., the bulwarks of her Flemish and Germanic frontier, were to be delivered up to the allies, to be held in trust for five years by an army of occupation, consisting of 150,000 men, to be maintained solely at the expense of France. An assessment was also levied upon the latter of

700,000,000 of francs, to be divided among the allies, and defrayed by modes and at periods specified in a separate convention. Conditions so degrading Marlborough and Eugene had never offered to impose after ten victorious campaigns. Such, however, was the mode adopted by the allies to maintain the imbecile monarch on his inglorious and improvident throne;—such the bitter cup of humiliation to be drained by that country, after so many triumphs over her neighbours, enjoyed with so little moderation.

Since the assumption of the regal title by the house of Orange its prudence and moderation had been conspicuous. Subsequent to the battle of Waterloo, in which the prince had displayed all the heroism of his ancient house, a committee had been appointed to draw up a constitution for the Seventeen Provinces. This was afterwards laid before an extraordinary assembly of the States of the United Netherlands, by whom it was unanimously accepted. In September the ceremonial of the king's inauguration took place at Brussels, with every mark of general satisfaction.

It is now time that we glance at the domestic concerns of Great Britain during 1815. In the parliamentary discussions which arose on the royal message of the 22nd of May, and its concomitant documents, lord Castlereagh stated, 'that Austria, Russia, and Prussia had engaged to furnish contingents in the following proportion :—Austria 300,000, Russia 225,000, Prussia 236,000 men ; and the other states of Germany 150,000. Great Britain and Holland 50;000 each ; and Britain to advance the sum of £5,000,000 in subsidies.' The measures of the ministry were supported by vast majorities in both houses, and the almost unanimous voice of the nation. Yet there were a few individuals in each house, distinguished for talent and integrity, who deprecated this warlike policy.

The estimate of expenditure for the present year was of a magnitude exceeding all precedent; the amount being £80,000,000 for Great Britain, and £10,000,000 more for Ireland. To meet this astonishing demand, the war taxes were continued to the height. Two successive loans were negociated for £45,500,000, and a vote of credit passed for £6,000,000. Subsequent to the victory of Waterloo the additional sum of £200,000 was voted to the duke of Wellington; and, in addition to the parliamentary and royal honors and rewards conferred on the conquerors of Waterloo, a national and truly noble subscription of nearly £500,000 was raised for the relief of the soldiers disabled by wounds, and the widows of the slain. On presenting the money bills for the royal assent, the speaker of the house of commons addressed the prince regent in terms of the highest exultation. Parliament was prorogued 11th July.

After a long recess, the parliament re-assembled on the 1st of February, 1816. The return of peace, though it brought security in its train, did not diminish the burdens of the nation in that degree which was expected. A large standing army was maintained; and it was the intention of the ministry to continue the odious tax on property, not altogether at its full amount, but with a reduction of five per cent. This excited a general alarm. Notwithstanding the presentation of numerous petitions against the impost, the chancellor of the exchequer ventured to propose its continuance; but the spirit of the house revolted from it: and when it was exploded, by a majority of thirty-seven votes, the shouts which arose from the unexpected popular triumph resounded over the whole neighbourhood.

The debates respecting the new settlement of the civil list were warm and acrimonious.

Soon after the opening of the session Mr. Brougham moved for the production of a copy of a treaty entered into at Paris, on the 26th of September, 1815, between the sovereigns of Austria, Russia, and Prussia, and which had received the sign-manual of those potentates. By the tenor of this singular document, which received the name of 'The Holy Alliance,' being couched in the most devout and solemn language, the high contracting parties declared their resolution to take for their sole guide, both in their domestic administration and foreign relations, the precepts of the holy religion of Christ their Saviour. Politicians were much perplexed to comprehend the meaning of an engagement at once so vague and so serious, and the production of it was resisted by lord Castlereagh, though he admitted that the prince regent had been urged by a joint letter of the three sovereigns to accede to it, and had in reply expressed his satisfaction with the nature of the treaty, and given an assurance, that the British government would not be one of the least disposed to act up to its principles. Subsequent events seem to indicate, that a resolution to support the authority of each other against any revolutionary movement among their own subjects, was the true object of this mystical combination.

During the session a message from the prince regent announced the approaching marriage, with his consent, of his daughter the princess Charlotte Augusta, with his serene highness Leopold George Frederick, prince of Saxe Coburg-Saalfeld, who had visited England in the train of the confederate sovereigns. His royal highness expressed his persuasion of the concurrence of the house in enabling him to make such provision on the occasion, as might correspond with the dignity and honor of the country. It was consequently proposed by the chancellor of the exchequer, and unanimously agreed to by the house, that an income of £60,000 should be settled on the illustrious pair; of which £10,000 were to form a sort of privy purse for her royal highness, and the remainder was to defray the domestic expenses of the prince of Coburg; this sum to be settled on them for their joint lives. Should the prince of Coburg die first, the whole was to be continued to her royal highness; if he should be the survivor, the sum of £50,000 was to be continued to him. The allowance to the princess from the civil list of £30,000 a-year was to cease.

From the period of the restoration of king Ferdinand VII. to the Spanish throne, his reign had been characterised by a series of uncontrolled bigotry, cruelty, and despotism.

Mr. Brougham, the able and intrepid advocate of freedom, now drew the attention of the British public to the proceedings in Spain; and during the session of 1816 brought forward a motion for an address to the prince regent, 'humbly intreating him to take into his gracious consideration the sufferings of the late Spanish regency and cortes; and representing that the alliance at present subsisting between his royal highness and his Catholic majesty affords the most favorable opportunity for interposing the good offices of Great Britain in their behalf, with the weight that belongs to her, and to the sentiments of this house and of the people.'

The distresses of the agricultural interests produced a number of petitions to parliament for relief. One member attributed the pressure to a combination of causes, but chiefly to the enormity of taxation; another to an overtrading in the bounty of the soil, and a consequent redundance of produce: but all were at a loss to devise a promising remedy. The manufacturers at the same time complained of that want of employment which was occasioned by the general impoverishment of their countrymen. Riots arose in several counties from the discontent which this state of affairs produced.

Near the close of the year a popular meeting took place in Spa-fields, Islington, and resolutions of reform, suggested by Mr. Henry Hunt, were voted by acclamation. An apothecary of the name of Watson also harangued the rabble in the same neighbourhood; and the subsequent operations of those who listened to his oratory excited a temporary alarm in the metropolis. The rioters paraded the streets, carried off firearms from the shops of several gunsmiths, marched to the Royal Exchange, where they had a short contest with the lord mayor and some officers of the police; but they at length dispersed from the fear of a military attack. These disturbances did not seriously encroach, however, on the general tranquillity of the realm.

In the midst of the tranquillity of Europe, an unexpected war arose on the coast of Africa in the course of this year, which gave occasion for a display of the undaunted valor of the British navy, not less honorable in its principle than splendid and triumphant in its results. The conduct of the Algerines, and other barbarians on that coast, had long excited general indignation; and, as even British vessels were occasionally attacked by them, lord Exmouth, being ordered by the prince regent to try the effect of temperate expostulation, sailed to Algiers, and submitted to the dey's consideration, that he should treat the Ionian Isles as if they were British colonies; that he should conclude peace with the kings of Naples and Sardinia; and that he should abolish Christian slavery in his dominions. Promises were given on the first two heads, but the other request was considered by the dey too important to be hastily settled. The rulers of Tunis and Tripoli, who were also addressed by the admiral, were more compliant: they promised that they would not consign prisoners of war to the miseries or disgrace of slavery, but would treat them according to the practice of Christian nations.

Returning to Algiers, his lordship renewed his remonstrances, but without effect; and, while he was thus employed, a brutal massacre was perpetrated at Bona upon many coral fishers, acting under the supposed security of the British flag. A fresh squadron, adapted to a bold enterprise, was therefore put under lord Exmouth's command; and he was joined by vice-admiral Capellen, of the Netherlands.

The session of parliament was opened, January the 28th, 1817, by the prince regent in person. The speech from the throne stated the anxious desire of government to make every reduction which the safety of the empire and true policy would allow; the deficiency in the revenue was acknowledged, but ascribed to temporary causes; continued assurances of amity from foreign powers were mentioned; but the most remarkable passages of this speech are those which relate to the state of the country as drawn in the late petitions. 'I am too well convinced,' said his royal highness, 'of the loyalty and good sense of the great body of his majesty's subjects, to believe them to be capable of being perverted by the arts which are employed to seduce them.'

On the return of the prince regent from the house of peers an immense crowd had assembled in the park, by whom he was received with marked demonstrations of popular resentment; and on passing Carlton-house the glass of the carriage was broken by a stone; nor was it without some difficulty that he at length reached the palace. This flagrant outrage being on the same day reported by lord Sidmouth to parliament, the two houses joined in an address suitable to the occasion; moreover, £1000 reward was offered, but in vain, for the discovery of the offender.

On the 3d of February a message was brought down from the prince regent to both houses of parliament, announcing that he had ordered papers to be laid before parliament, containing information of certain practices, meetings, and combinations, in the metropolis and in different parts of the kingdom, evidently calculated to endanger the public tranquillity, to alienate the affections of his majesty's subjects from his person and government, and to bring into hatred and contempt the whole system of our laws and government. On the motion of ministers these papers were referred by each house to a secret committee of the members. The reports of the two committees were delivered to their respective houses on the 18th and 19th of February; and through them some alarming statements were made to the public.

The first result of these proceedings was a motion by lord Sidmouth in the upper house, for a suspension of the habeas corpus act until the 1st of July ensuing; which was carried by a great majority, though not without strong opposition from several eminent noblemen, and a protest signed by eighteen. In the house of commons, lord Castlereagh made a motion to a similar effect; giving notice at the same time of farther measures for the protection of the country against the machinations of the disaffected. These were,—first, the extending of the act of 1795, for the security of his majesty's person to

that of his royal highness the prince regent; secondly, the embodying into one act the provisions of the act of 1795, relative to tumultuous meetings and debating societies, and the provisions of the act of the 39th of the king, which declared the illegality of all societies bound together by secret oaths, and of such as extended themselves by fraternised branches over the kingdom; and, lastly, the making of enactments to punish with the utmost rigor any attempt to gain over soldiers or sailors to act with any association or set of men, or to withdraw them from their allegiance.

Imputing the distress of the people to misgovernment, and the want of reform, a person resident in the county of Nottingham, whose name was Brandreth, aided by several other manufacturers, strenuously exerted themselves to organise an insurrection in that county; yet, with all their clamor and persuasion, they could muster only a very small party: and the result was, that these infatuated men only deluded themselves, and precipitated their own ruin.

Mr. Wilberforce embraced an opportunity, before the close of the session, to call the attention of the house of commons to the slave trade, which was still carried on without molestation by the subjects of France, Spain, and more especially Portugal, which had extended its traffic along the whole coast of Africa; so that the accession of these powers to the eventual abolition was a mere dead letter. He consequently moved an address to the prince regent, praying 'that he would be pleased to pursue with unremitted activity the negociations into which he had already entered on this important subject.' Lord Castlereagh suggested the danger of interfering with pending negociations; but, as the house betrayed no symptoms of alarm on that head, he acquiesced in the motion, which passed unanimously.

Towards the close of the session Mr. Abbot, who had held the office of speaker in five successive parliaments with distinguished reputation, intimated his intention of resigning, on account of indisposition; and was soon afterwards called to the house of lords, by the title of lord Colchester; an annuity of £4000 being granted to him for his meritorious services. The right honorable Charles Manners Sutton was elected in his place; and the parliament was prorogued in person by the prince regent on the 12th of July.

In the month of August arrived at Portsmouth, from his embassy to China, lord Amherst, who had left England in 1816, and arrived off the Chinese coast in the following July. Whatever were the advantages anticipated from this expensive equipment, of which indeed the prospect, after the total failure of the former embassy by lord Macartney, must have been very faint, they were entirely frustrated by the refusal of lord Amherst to submit to the degrading ceremonial of prostration now required by the court of Pekin, though dispensed with in the person of his predecessor. The emperor, however, in his 'imperial mandate to the king of England,' for such was the language of the court of Pekin, expressed his satisfaction 'at the disposition of profound respect, and due obedience, which were visible in sending this embassy.' 'I therefore,' says he, 'thought proper to take from the articles of tribute a few maps, with some prints and portraits. In return, I ordered to be given to you, O king, a jouée (a string of imperial beads), two large silk purses, and eight small ones, as a proof of our tender and indulgent conduct. Your country is too remote from the central and flourishing empire. Besides your ambassador, it would seem, does not know how to practise the rites and ceremonies of the central empire. There will be no occasion hereafter for you to send an ambassador from so great a distance, and to give him the trouble of passing over mountains, and crossing the ocean. If you do but pour out the heart in dutiful obedience, it is by no means necessary, at any stated time, to come to the celestial presence.' Such was the haughty language of rebuke in which the emperor of China thought proper to address the king of England, after which, it can hardly be expected that a third embassy to China will speedily take place.

The 6th of November this year was rendered fatally memorable by the sudden and melancholy demise of the princess Charlotte of Wales, presumptive heiress of the crown, immediately after the birth of a still-born infant.

The general regret had not entirely subsided when, on the 28th of January, the British parliament re-assembled. The prince regent then declared, that it was a soothing consolation to his heart to receive from all descriptions of his Majesty's subjects the most cordial assurances, both of their just sense of the loss which they had sustained, and of their sympathy with his parental sorrow; and that, amidst his own sufferings, he had not been unmindful of the effect which this sad event must have on the interests and future prospects of the kingdom. The affairs of this session were not remarkably interesting. The first bill that was brought forward provided for a repeal of the act which suspended the habeas corpus. As ministers could not deny that some irregularities had been committed in the exercise of the great powers which had been allowed to them, they also demanded from the two houses a bill of indemnity for themselves, and for all who had acted under them.

The subject of education, particularly that of the poor, occasioned some debates in parliament. It was generally believed that shameful abuses and embezzlements had disgraced the characters of many trustees, appointed to superintend the application of those funds which were destined to aid the purposes of public instruction. Mr. Brougham therefore proposed, that persons of learning, judgment, and respectability, should be authorised to make a str ct enquiry into the execution of every trust of this kind. A bill to that effect received the royal assent.

The diffusion of religious knowledge also occupied the attention of both houses of parliament. A message was brought down from the prince regent, desiring them to direct their attention 'to the deficiency which had so long existed in the number of places of worship belonging to the established church, when com-

pared with the increasing population of the country,' and £1,000,000 sterling was voted for the building of new churches. Lord Holland suggested the expediency of drawing a large sum for this purpose from the richly endowed church of England; but this idea was instantly exploded by the higher clergy, although the archbishop of Canterbury and some of his brethren contributed by individual donations to the increase of the fund.

A royal message, on the 13th of April, announced the intended marriages of the dukes of Clarence and Cambridge, to the princesses of Saxe Meinungen and Hesse-Cassel; and, soon after, that of the duke of Kent to the dowager-princess of Saxe Leiningen, sister of prince Leopold of Saxe Coburg. The prince regent at the same time expressed 'his reliance on the readiness of parliament to make the necessary provision for the same,' which gave rise to a memorable debate. Parliament therefore granted an addition of £10,000 to the income of the duke of Clarence, and £6000 to the other dukes. The latter sum was not objected to; but, no reason being assigned why the house should show any partiality to the duke of Clarence, Mr. H. Sumner moved an amendment, placing him on the same level, which was carried by 193 to 184 voices.

In April the princess Elizabeth, third daughter of the king, was married to the hereditary prince of Hesse Homberg; but no application was made to parliament on that account.

A treaty, alluded to in the speech from the throne, between England and Spain, relative to the slave trade, was laid before the house by lord Castlereagh. Conformably to the articles of this treaty, Spain, in consideration of the sum of £400,000, to be paid her by England, in compensation of the losses which had been or might be sustained by the subjects of his Catholic majesty engaged in that traffic, consented to its abolition on all the coasts of Africa, north of the line, still leaving it open to the south! A convention was also concluded with Portugal to the same effect.

On the 4th of November the plenipotentiaries of the courts of Austria, Great Britain, Prussia, and Russia, assembled at Aix-la-Chapelle, where they addressed to the duke of Richelieu, the French minister, the following important document:—That their august masters being called upon, by the twentieth article of the treaty of Paris, to examine, in concert with the king of France, whether the military occupation of a part of the French territory, stipulated by that treaty, ought to cease at the termination of the third year, or be prolonged to that of the fifth; had recognised, with satisfaction, that the order of things established by the restoration of the legitimate and constitutional monarchy of that country, gave assurance of the consolidation of that state of tranquillity in France necessary to the repose of Europe; and that in consequence they had commanded the immediate discontinuance of such military occupation,—a measure which they regarded as the completement of the peace.

Her majesty queen Charlotte expired at Kew palace on the 7th of November, in the seventy-fifth year of her age, after a lingering decline, attended with much suffering, which is said to have been sustained with great fortitude. She merited the respect of the nation by her conjugal and maternal character, by the uniform propriety of her conduct, and by the strict decorum which she maintained at court. Her ruling passion in the decline of life was believed to be the accumulation of riches; the political influence which she acquired during the illness of the king, in 1788, she maintained to the last.

The new parliament was convened for the despatch of business on the 14th of January, 1819. On the 21st, the speech delivered by the lord chancellor, stated that his royal highness was persuaded that parliament would view with peculiar satisfaction the intimate union which so happily subsisted among the powers who were parties to the late congress of Aix-la-Chapelle. His royal highness had the greatest pleasure in being able to inform the parliament, that the trade, commerce, and manufactures of the country were in a very flourishing condition! In adverting to the papers relative to India, which the prince regent had directed to be laid before the two houses, the lords commissioners had the commands of his royal highness to inform them, that the operations undertaken against the Pindarees were dictated by the strictest principles of self defence; and that, in the extended hostilities which followed, the Mahratta princes were in every instance the aggressors.' The addresses in answer to the regent's speech were voted without opposition, and both houses condoled with his royal highness on the death of his venerable parent. It was now proposed that the duke of York should have the custody of the royal person; and that he should be remunerated with an annual grant of £10,000, for the great trouble and extraordinary expense which must unavoidably attend his occasional journeys to Windsor. After warm debates this allowance was voted; but the Windsor establishment was at the same time reduced.

A topic deeply interesting to the friends of humanity occupied the early attention of the new parliament. This was the state of the criminal code. On the 9th of February Mr. Wilberforce presented a petition, from the people called Quakers, praying for a revisal of it. A petition was also presented from the corporation of London, complaining of the increase of crimes, and pointing out the commutation of capital punishment as a remedy. Ministers on the 1st of March proposed to refer the subject to a committee; and on the following day Sir James Mackintosh rose to make a motion to this effect.

He divided capital felonies into three classes; those on which the punishment of death was always, those on which it was very often, and those on which it was never put in force. The first and second divisions he proposed for the present to leave untouched: the last, consisting of no less than 150 different crimes, ought, he conceived, to be expunged entirely from the list, as the relic of barbarous times, and disgraceful to the character of a thinking and en-

lightened people. Lord Castlereagh passed many compliments on the candid and moderate spirit in which the honorable and learned gentleman had brought forward his motion; but he persisted in opposing the appointment of a separate committee. Other members, however, strenuously supported the measure, and it was finally carried by a majority of 147 to 128 voices.

During this session of parliament, and the succeeding months, the political horizon of Great Britain wore a clouded aspect. A numerous part of the community, chiefly of the operative class of citizens, became clamorous for what they termed a radical reform, as the only remedy for grievances that were become intolerable; and their tone had risen to such an elevation at the time of the prorogation, that the speech from the throne noticed, in the language of asperity, the 'attempts which had been made in some of the manufacturing districts, to take advantage of circumstances of local distress to excite a spirit of disaffection to the institutions and government of the country.' Meetings took place in various parts, and strong resolutions were voted. At Manchester, Leeds, Stockport, &c., multitudes of artisans and manufacturers were convened to listen to speeches from popular orators, and to pass by acclamation resolutions for annual parliaments, universal suffrage, and voting by ballot. In general these assemblages were regularly convoked and dissolved without any tumultuous proceedings, though with minds greatly inflamed by wild declamation against what were called the usurpations of the higher orders, and the intolerable sufferings of the poor. It afterwards appeared, that some of the most violent of these harangues were made by spies of government.

On the 16th of August, pursuant to notice given by means of hand-bills and placards, a meeting was held in an open space called St. Petersfield, near a church of that name in Manchester. During the whole morning large bodies of reformers, arrayed in regular order, continued marching in from the neighbouring towns and villages. Each party or division had its own banner, bearing some short inscription or motto, such as 'no corn laws,' 'universal suffrage,' 'vote by ballot,' 'liberty or death,' &c. &c. The numbers collected on this occasion were estimated at 50,000 or 60,000. The chairman of this meeting was a Mr. Henry Hunt, a person of more talent than principle. Having ascended the platform, he harangued the mob, expressing his full confidence in their orderly and peaceable demeanor; nor was any offensive weapon to be seen in the whole assemblage. While he was engaged in making his speech, a troop of the Manchester yeomanry cavalry suddenly appeared at the extremity of the field. Making their way to the hustings, the commanding officer told Hunt he was his prisoner; and immediately took him into custody, with several others who were standing beside him. The yeomanry then began to strike at the banners, charging right and left with their drawn swords, and dashing through all that obstructed their passage. A dreadful scene of confusion and terror ensued; numbers being trampled under the feet of the horses, or cut down, men and women indiscriminately, by the sabres. The Manchester magistrates, who viewed this bloody scene from the windows of a house at a convenient distance, are said to have read the riot act; but, if they actually did so, the fact was known to very few; and it is certain that no time was allowed for dispersion, conformably to the requisition of the act. The number of killed and wounded was estimated at between 300 and 400.

Among other places that held meetings for the purpose of petitioning the legislature to enquire into the late proceedings at Manchester, a numerous one was convened at York by the high-sheriff, and sanctioned by the presence of earl Fitzwilliam, as well as many other persons of rank and consequence. At this meeting appropriate resolutions were passed, and a petition was voted to the prince regent, to institute an enquiry; the only effect of which was the dismission of that highly respected nobleman from his lieutenancy. In the reply to the city of London, the regent referred the sufferers 'to the tribunals of the country, if any injury had been sustained;' but the Lancashire grand jury threw out all the bills preferred against those concerned in the outrages and enormities perpetrated. This was afterwards a topic of great debate in parliament.

It was now announced that the health of the king, which had hitherto been good for his age, was on the decline; and that decline, proved to be rapid. On the 23d of January, 1820, the public mind received a severe shock by the death of his fourth son, the duke of Kent, who expired at Sidmouth, in Devonshire, after a very short illness, much esteemed and lamented, leaving an infant daughter. The regrets excited by the loss of this illustrious prince were speedily absorbed in the greater interest excited by the tidings from Windsor, which foretold the approaching dissolution of his august father: the prince regent himself was also seriously indisposed.

On Saturday, the 29th of January, the long and eventful career of the monarch, who had attained his eighty-second year, terminated by a quiet and almost insensible dissolution, about thirty-five minutes past eight in the evening. The duchess of Gloucester, and the princesses Augusta and Sophia, who had been unremiting in their attentions to their venerable parent, were at this time in the palace; and the duke of York watched with filial solicitude by the side of his couch. On that prince devolved the duty of announcing the mournful event to the regent, who on the 31st of January was proclaimed king with the usual solemnities.

The venerable age, the protracted sufferings, the private and personal virtues of George III. with his still recent demise, render it both a difficult and an invidious task to attempt to sketch the political features of his reign with historic fidelity. It has been said of him on high authority, and we believe with equal truth, that 'he would never do wrong, except when he mistook wrong for right.' The notions of government originally infused into his mind by the earl of Bute, probably differed little from those which Charles I. learned from archbishop Laud, however modified

in practice by the necessity of circumstances. A distinguished foreigner says, 'The accession of George III. was an actual political revolution in England. Pretenders were no more. The house of Hanover was established. The whigs were dismissed from administration, as troublesome observers no longer wanted. The government was again seized by the tories, those friends of power, who have ever since kept it, to the great detriment of public liberty. Yet the king was personally a friend to law and justice, and sincerely wished the welfare and prosperity of the country.'

The reign of George IV., with regard to Europe and the Western world, at least, has been wholly peaceful; and all the great relations of the empire have remained undisturbed. The wars of India will be given under HINDOSTAN, or INDIAN EMPIRE: with regard to the other transactions of this reign, Nemo nisi post mortem beatus, they are of too recent date to become, as yet, materials of history.

Great Britain has been subject to two dynasties and the commonwealth. By the house of Stuart she was taught the tendency of a monarchy to arbitrary power; by the commonwealth the evils of a democracy, 'the madness of the people!' Her second dynasty has not failed to exhibit both lessons. May the Almighty Guardian of her rights and liberties preserve her mindful of both of them!

PART II.

MISCELLANEOUS STATISTICS, &c.

BRITAIN, and particularly ENGLAND, as the seat of the government, are articles under which the most important geographical and statistical features of the country have been treated. We find remaining only a few particulars relating to the commerce, navy, geology, state of the arts, colonial dependencies, &c., of Great Britain.

1. *Historical Sketch of the Commerce of Great Britain.*—We have mentioned the early visits of the Phenicians to this country. Cæsar, however, found the Britons in that state of barbarity which proves that their commerce could never previously have been more than that which attaches to the very first stage of civilisation, i. e. when tillage and agriculture have begun to supersede the hunter and shepherd state. In the south parts of the island the Britons had arrived at this first stage, but in the other parts they still lived by pasture, clothed themselves with the skins of beasts killed in the chase, and dwelt in the temporary huts of the forests and marshes. Their commerce with the Phenicians and Carthaginians was therefore confined to the barter of tin, lead, and skins, for brass trinkets and other trifles. According to Diodorus, the Greeks, after the voyage of Pytheas, also visited the coasts of Britain for the purposes of commerce, and Cæsar found some commerce existing between the Britons of Kent and the opposite Gauls. Under the imperial government, while the Britons lost their savage independence, they rose in the scale of civilisation, by the adoption of useful arts, and their commerce increased in proportion. The articles exported from Britain to Rome were tin, lead, hides, lime, chalk, pearls, horses, oxen, dogs, and slaves, for at this early period of our history, the merchants of Bristol dealt in human flesh, purchasing men and women in all parts of the island, and selling them abroad as slaves; and it is even recorded that they first rendered the women pregnant to increase their value!

The inroads of the Scots and Picts, on the departure of the Romans, threw the Britains back into the state of barbarity from which they had begun to emerge; nor was the confusion attendant on the Heptarchy much more calculated to elicit improvement; no sooner, however, were the kingdoms united under one sovereign, in the person of Egbert, than commerce and manufactures revived in spite of the descents and ravages of the Danes; and under the Saxon monarchs London, Exeter, and Bristol, are recorded as considerable trading cities.

At the end of the ninth century, when the Great Alfred had purged the country of its Danish invaders, a regular system of barter took place with the neighbouring nations, and Athelstan, the grandson of Alfred, passed a law remarkable for the age, by which a merchant who had made three foreign voyages on his own account was admitted to the rank of a thane or gentleman. Ethelred in 979 granted a free trade to a society of German merchants, established in England under the name of Emperor's Men, on condition of paying certain tolls, and presenting the king at Christmas and Easter with two pieces of gray cloth and one of brown, ten pounds of pepper, two vessels of vinegar, and five pairs of gloves.

The Conquest again produced an unfavorable revolution in commerce, by the introduction of the feudal system, which paralysed enterprise by destroying the liberty of the subject, at the same time that it rendered trade ignoble in the privileged class. Hence the chief trade of England was engrossed by the Jews, who began to settle in the country about the time of the Conquest, and who, though oppressed in every possible way, amassed vast fortunes by usury. In the year 1100 a number of Flemings, driven from their own country by an irruption of the sea, settled in England and introduced manufactures of wool. At the same period the people of Bristol traded to Ireland, but the principal seats of commerce were London and the cinque ports from their proximity to the continent. The exports, at this time, were horses, wool, woollen cloths, leather, corn, lead, and tin. The imports were, linens, fine woollens, silks (for the royal family only), steel, iron, spices, and other productions of India.

The cinque ports were originally five havens, to which were granted certain privileges, on condition of defending the coast from invasion. The origin of these establishments may be traced to the Romans, who, though they possessed a superiority of naval force, found it necessary to adopt measures of defence against the Norman pirates, who assumed the titles of Sea Kings of the North, and for this purpose nine stations on the coast opposite Gaul were fortified. The same necessity continuing long after the departure of the Romans, gave rise to the foundation of the

cinque ports, which took place in the reign of Edward the Confessor or William I. To each of the chief ports were attached several subordinate members, in the following series:—1. *Hastings*, with Seaford, Pevensey, Hidney, Rye, Winchelsea, Beakesbourne, Bulverheath, and Grange, as members.—2. *Sandwich*, with Fordwick, Reculver, Sarre, Walmer, Ramsgate, and Deal.—3. *Dover*, with Faversham, St. Margaret, Woodchurch, Goresend, Kingdown, Birchington, Margate, Ringwold, and Folkstone.—4. *Romney*, with Lydd, Romehill, and Ringwold.—5. *Hythe*, with Westmeath. Rye and Winchelsea were afterwards raised to the rank of cinque ports, with Tenterden and Excove as members of the former. The principal condition on which the cinque ports held their privileges was, the furnishing a certain number of ships and mariners for military service.

Under Edward I. coal mines first began to be worked in England, and so rapid was the progress, that in 1379 a duty of sixpence per ton was levied on the ships employed in the coal trade, to be applied to their protection. At this same period the English traded to Italy, Spain, and Portugal, as well as to all the countries of the north, and in 1381 the principle of the act of navigation was introduced into the legislation of the kingdom, by a law declaring that 'none of the king's subjects shall carry forth or bring in merchandise, but only in ships of the king's allegiance.' This law, however, seemed to have but little effect in turning the king's subjects to the profession of commerce, and the trade continued to be principally carried on in the ships of foreigners and by foreign merchants, residing in England and licensed by the kings under different denominations. Such were the German merchants chartered by Henry III. (1259); the Steelyard Company, a branch of the Hanse Association, whose privileges were confirmed by Edward IV., &c. Indeed, as we have already had occasion to notice, the carrying trade of England was almost entirely engrossed by the Hanse Association until the reign of Edward VI., when the English merchants first began to complain of the monopolies granted to foreigners, and particularly to the Steelyard Company, which in one year exported 50,000 pieces of cloth, while the English merchants exported only 1100. Edward, feeling the justice of these complaints, revoked the privileges of this company; and though foreigners again received favors from the bigoted Mary, at the instigation of her Spanish husband, they again fell into discredit under Elizabeth, from whose reign may be dated the origin of English commerce, in the just sense of the term.

The Reformation, which was only firmly established by this princess, was attended with the most happy consequences on the population and energies of the nation; for by it 150,000 persons, who had been restrained from marriage, were, if we may use the expression, put into circulation; and 50,000 others, who had been maintained in idleness by the convents, were obliged to seek a livelihood by industry.

In this reign were chartered the African, East-India, Russia, Eastland and Turkey Companies: and, though such institutions are generally allowed to be injurious in an advanced state of commerce, they must also be admitted to be the best nurses of its infancy. The threatened invasion, by the Spanish Armada, gave the first grand impulse to the marine of England by the purchase of ships from foreigners, and by the formation of national seamen; and so rapid was the progress, that, after the destruction of the Armada, a census being taken of the merchant vessels in England, it was found that Norfolk, Suffolk, Essex, Kent, and Sussex, possessed 471 ships, or more than half the number in the whole kingdom thirty years before. The peaceable James I. gave great encouragement to trade and shipbuilding, and in his reign British colonisation began in America, and opened a new theatre of industry and enterprize. At this period 400 vessels were employed in the coal trade of Newcastle.

The merchant vessels of England were, however, still of small burden, and it continued customary to hire large ones from foreigners for distant voyages or extensive transactions. At length, in 1616, an order from the king and council was issued on the petition of the merchants of London, prohibiting the export of British commodities in any but British bottoms; and the effect was such, that the whole nation applied itself to the creation of a merchant marine, at the same time that the ships, being built of a larger size, were capable of long voyages, and the British merchant flag was now first seen in the Mediterranean. So great was the impulse, that from a ship of 100 tons, being a kind of prodigy at the commencement of the reign of James I., a number of ships of 300, 400, and even 500 tons, were now launched from the British docks. In 1615 there were not ten vessels above 100 tons out of London: and, in 1622, Newcastle had 100 sail, each exceeding that tonnage.

During the first part of the reign of Charles I., commerce continued to flourish, when the trade to the west coast of Africa and East Indies received a great extension, and the whole commerce of Spain was in the hands of the English, who also sent a great quantity of woollen cloths to Turkey.

Under the commonwealth, the English began to dispute with the Dutch the dominion of the seas, and hence arose the famous Navigation Act, by which it was prohibited to all foreign ships to trade to the English colonies, without license; and at the same time the merchandise of Asia, Africa, and America was forbidden to be imported into England, except in British bottoms, or merchandise from any part of Europe except in vessels belonging to the country of which the merchandise was the produce or manufacture. An additional article added after the Restoration, obliging the master and three-fourths of the crews of vessels sailing under the English flag to be English subjects, completed this great monument of maritime legislation.

Such were the effects of the navigation act, added to the increasing population of the American colonies, and consequent increase of their

trade, that, between the Restoration and Revolution, the English merchant marine was doubled. While at the same epoch the revocation of the edict of Nantz, which ruined the manufactures of France, caused a great and rapid improvement in those of England, by the influx of the persecuted Protestants, who introduced or perfected the manufacture of silk, cotton, linen, hats, jewellery, cutlery, and clock-work, and thereby freed England from an onerous dependence on France for these objects. The Revolution, by securing liberty, gave a new impulse to every kind of industry; and the union of Scotland, by identifying the interests of the two kingdoms, proved equally advantageous to each, and to the empire in general.

From this epoch commerce continued in a constant progression, unchecked by frequent wars, or even by the separation of those colonies, which were once thought to be the grand basis of the commercial fabric, until it reached a height that drew down on us the envy and animosity of all Europe; and in a great measure caused, while it most essentially aided us to support, those wars which have desolated Europe for the last twenty years, and to which the energies of Great Britain at length happily put an end.

2. *Historical Sketch of the Progress of the British Navy.*—The natural defence of Great Britain is her naval force; as necessary to secure her coasts from invasion as for the protection of her commerce. The history of the progress of the navy may be divided into three periods; the first comprehending the period previous to the reign of Henry VIII; the second ending with the Restoration; and the last from that epoch to the present time.

I. Cæsar only notices particularly the boats of the Britons, formed of withies and covered with skins, in which they crossed the English and Irish channels in summer: it seems probable, however, that they had even at this time vessels of a more stable construction, for he tells us that the Veneti of the opposite coast of Gaul obtained auxiliaries from Britain against the Romans, and that the fleet of the Veneti and Britons, which engaged that of the Romans off the coast of Armorica (Britany), consisted of 230 large and strong ships, which were totally destroyed by the Romans. This defeat sufficiently accounts for the Britons being unable to resist the invasion of the Romans next year by sea.

While the Romans remained masters of the island they kept up large fleets to protect the coasts and commerce, and the whole naval force was commanded by an officer styled Archigubernus Classis Britannicæ, or High Admiral of the British fleet. When they abandoned the island they withdrew their ships, and those few which remained to the Britons fell an easy prey to the Frank and Saxon pirates, so that the island was again totally deprived of its natural defence.

Of the confusion of the heptarchy the naval power of the country partook so largely, that it was not until the reign of the great Alfred that it again resumed an existence. The first fleet collected by this prince consisted only of five or six ships, with which he attacked and defeated six Danish pirates: encouraged by this success, he increased his fleets to 120 ships, which he distributed in proper stations round the island, where they were sure to meet the Danes, either in their approach or retreat, and generally were successful. The navy did not again decline under the successors of Alfred; and Edgar, in particular, kept up a large naval force, divided into three squadrons. Some English historians make the number of vessels amount to 3,000 or 4,000; but probably, as Mr. Henry observes, there is here an error of an added cypher.

The successors of Edgar allowed the navy to decline, and the Danes again ravaged the coasts with impunity. In 1007 a fleet was raised by requisition, on the proprietors of land, of 800 vessels; but this force being either dispersed or destroyed, by the treachery and jealousy of its chiefs, the way was opened for the Danish conquest. During the period of this dominion, there being no foreign enemies to resist, both the naval and military force of the kingdom were neglected; and hence there was no adequate navy to resist the invasion of William of Normandy, which was made in 3,000 vessels, many of which, however, were doubtless only open boats, for in the short passage across the channel several vessels were lost.

We have noticed the establishment of the cinque ports, and their being obliged to furnish ships for the public service; this force consisted of fifty-seven ships, each with twenty-seven men and boys, and the following was the proportion furnished by each:—

Hastings and its members	21
Dover and its members	21
And each of the other three ports and their members	5

This long continued to be the only standing navy of England; and, when necessary to increase it, ships were hired or pressed from the merchants, and armed by the crown.

From the epoch of the Norman Conquest the shipping of England increased both in number and in size; and the fleet that conveyed Richard I. to the Holy Land is described, by contemporary historians, as excelling every thing before seen in the number, magnitude, and beauty of the ships. It was composed of thirteen of the largest class of vessels, named dromones, 150 of the second class, called bussæ, fifty-three row galleys, and a great number of tenders. In the great battle between the English and French fleets, in the reign of John and Philip II., the English fleet consisted of 500 ships; and at this same epoch William of Malmesbury describes the English seamen as 'excelling all others both in the art of navigation and in fighting.' Nevertheless the ships of war still continued of very small dimensions, the largest in 1304 carrying only forty men.

It will not then appear extraordinary that Henry III. should require 1000 such vessels for his expedition to Gascony, nor that Edward III. should have 700 English vessels, and thirty-eight foreign, at the siege of Calais, the average crews of this fleet being but twenty men. In 1359, when Edward again invaded France with 1100

vessels, it is probable this was the whole shipping of England pressed for the occasion into the king's service.

Henry IV. maintained the dominion of the narrow seas, and chastised the French and Flemings, who had presumed to insult the coasts, and interrupt the trade:—under his successors the navy lost nothing of its renown. Henry V. was victorious by sea and land, and seems to be the first prince who had any ships his own property. In his first invasion of France he had 'two large and beautiful ships, with purple sails, called the King's Chamber and King's Hall.'

During the disastrous reign of Henry VI. the naval and military strength of England declined, and the French insulted the coasts, and burned the town of Sandwich. The dominion of the narrow seas was however regained by the great earl of Warwick, who was declared lord high admiral. Edward IV. paid great attention to the navy; and, in 1475, invaded France with a large fleet. This prince had also several ships of his own, which he employed both in war and commerce on his own account.

Henry VII. patronised the navy, and, though the kingdom enjoyed peace, a fleet was always kept ready to act. The first ship of war, in the proper sense of the term, expressly built for the public service, seems to have been in the reign of this prince, and was called the 'Harry Grâce de Dieu:' she was 1000 tons burden, cost £14,000, and was probably the first two-decked ship, as well as the first with more than two masts, and she had four.

II. The second period of our naval history commences with the reign of Henry VIII., when the sea service first became a distinct profession, and during which the Admiralty and Navy Boards, and the dock yards of Deptford, Woolwich, and Portsmouth, were established. This prince also brought shipwrights from Italy to instruct his subjects in the art of construction, and the rules drawn up by his order, for the civil regulation of the navy, form the basis of its present government. The ships belonging to the crown, however, still formed but a very insignificant portion of the naval force; at the death of Henry the royal tonnage being but 12,000. During the reign of his successor, Edward VI., it continued nearly stationary; the amount being at the death of this prince fifty-three king's ships, of which twenty-eight only were above eighty tons, and the total tonnage 11,000. During the unhappy reign of Mary the fleet declined, and at her death consisted of but twenty-seven vessels, and from 6000 to 7000 tons, and 3565 men. Its expenses at this epoch were estimated at £10,000 per annum.

Elizabeth, soon began to increase the navy, both by the building of ships expressly for it, as well as by encouraging merchants to build large ships, proper on occasion to serve as ships of war; she also brought foreign ship-builders into the kingdom, filled the arsenals with naval stores, cast iron and brass ordnance, manufactured gunpowder, and in short acquired the title of The Restorer of Naval Power, and the Sovereign of the Northern Seas.

The greater part of the naval force, however, still continued to be hired on the spur of the occasion from merchants; and of the fleet that destroyed the Spanish armada, consisting of 176 ships, 31,985 tons, and 15,000 men, there only belonged to the crown, thirty-four ships, 12,590 tons, and 6279 men. The largest of these vessels was 1100 tons, and mounted sixty or sixty-five guns. At the death of Elizabeth the royal ships were forty-two, the tonnage 17,055, and 8346 men, and the expense of the fleet had increased to £30,000 per annum. A contemporary writer thus describes her navy in 1577. 'The queen's highness hath at this present already made and furnished to the number of one and twenty great ships, which lie for the most part in Gillingham Road. Besides these her grace hath others in hand also. She hath likewise three notable galleys, with the sight whereof, and the rest of the navy royal, it is incredible to say how marvellously her grace is delighted. I add, to the end that all men should understand somewhat of the great masses of treasure daily employed upon our navy, how there are few merchant ships of the first and second sort, that being apparelled and made ready to sail, are not worthy one thousand pounds at the least, if they should presently be sold. What then shall we think of the navy royal, of which some one vessel is worth two of the other, as the shipwrights have often told me.'—*Harrison's Description of Britain*, 1577.

In the American war Liverpool alone sent more tonnage to sea in privateers, than the whole royal navy of England contained at this memorable epoch; the number of privateers being 120, the tonnage 30,787, guns 1986, and men 8754.

The defeat of the Spanish armada transferred the sceptre of the sea to the Dutch, for France and England, occupied solely by the humiliation of the House of Austria, considered without jealousy the maritime superiority of the republic; and, there being no occupation for a fleet during the peaceable reign of James I., the navy, though it was not neglected, was not much augmented; indeed the number of ships decreased, but their size was considerably increased, the fleet at the death of James being composed of thirty-two or three ships of nearly 20,000 tons. 'In my own time,' says Sir Walter Raleigh, 'the shape of our English ships hath been greatly bettered. It is not long since the striking of the topmast hath been devised. Together with the chain-pump, we have lately added the bonnet and drabbler. To the courses we have devised studding-sails, top-gallant-sails, sprit-sails, and top-sails. The weighing of anchors by the capstan is also new.'

Charles I. paid considerable attention to the navy in the early part of his reign, particularly in the increase of size; and in 1637 was launched from Woolwich, the 'Sovereign of the Seas,' the first three-decker constructed in England; and in this reign ships were first classed in rates. This ship was 128 feet keel, and forty-eight feet beam; length over all 232 feet. She had five lanterns, the biggest of which would carry ten people upright; had three flush decks, a forecastle, half deck, quarter deck, and round-house. Her lower

tier had thirty ports for cannon and demi-cannon. Middle tier, thirty for culverins and demi-culverins. Third tier, twenty-six for other ordnance. Forecastle, twelve; and the two half decks had thirteen or fourteen more ports within board for murdering pieces, besides ten pieces of chase ordnance forward, and ten right aft, and many loop-holes in the cabins for musquet shot. She had eleven anchors, one of 4100 lb. She was of the burden of 1637 tons.

At the breaking out of the Rebellion the navy consisted of forty-two ships of 22,411 tons. The civil wars which deluged the kingdom with blood, and brought her misguided monarch to the block, caused a temporary neglect of the navy, and it was also greatly reduced by prince Rupert's carrying off twenty-five ships in 1648.

The measures of Cromwell, however, soon replaced this loss, and in five years his navy was increased to 150 ships, of which more than the third were two and three deckers. The Dutch now feeling that to divide the empire of the seas was to lose it, opposed their maritime pretensions to those of the English, and continued to dispute this empire during a bloody war, which, though for some time indecisive, terminated in their being obliged to give up the contest, and sue for peace, which was granted on the express condition of their acknowledging the superiority of the British flag in the British Seas. This war greatly added to the number of the navy by captures from the enemy, and also improved the skill of the seamen. Hitherto the naval commanders were chiefly noblemen, but little acquainted with the profession, and who, content with the honors of command, left the management of the vessels to the pilots. During the commonwealth, few nobles were found in the public service, and the ships of war were generally commanded by persons bred in the merchant service, who, however they might fall short in polished education, were expert seamen. Cromwell raised the pay of seamen from nineteen to twenty-four shillings a month; and at his death the fleet consisted of three first rates of 100, eighty, and seventy guns; five second rates of sixty-six to fifty-two guns; four third rates of fifty-two to forty-four guns; eight fourth rates of forty to twenty-eight; ten fifth rates of thirty-four to sixteen; and nine sixth rates of sixteen to two.—Total 157 ships, 4390 guns, and 21,910 men. The annual grant for the service of the fleet during the protectorate was £400,000.

The duke of York, on the Restoration, was appointed to the post of lord high admiral; and by his knowledge of naval affairs, and his partiality to the service, the marine was considerably improved, and increased in efficient force by the greater size of the vessels. On the removal of this prince from the naval administration, in 1673, the fleet was again neglected, and the profligate Charles dissipated the money voted for its support on his pleasures, so that on the duke of York's being again placed at the head of the navy, in 1684, only twenty-two ships were fit for sea, the rest being totally out of repair or rotten, and the arsenals empty of the materials for their refitting. The exertions of this prince after his resuming the administration, and also after his accession to the crown, being found incapable of restoring the fleet by the ordinary course, he suspended the navy board and created a commission of naval affairs, by whose exertions the fleet was soon restored; and from a state of absolute impotency the fleet at the Revolution consisted of 173 serviceable vessels of 101,892 tons, 6903 guns, and 42,003 men. The arsenals were at the same time abundantly stored.

William III., in his war with France, found it necessary to increase the fleet of England. A number of line of battle ships were accordingly built, and at the close of the war the navy was composed of 323 ships and vessels, of which five were three deckers. In 1700 half pay was established for the classes of commissioned officers.

During the reigns of Anne and George I. the number of vessels decreased; but they were built of larger dimensions, and the tonnage considerably increased. At the death of the former the ships were 247, and the tonnage 167,219; and, at the death of the latter, ships 233, and tonnage 170,862.

The wars with Spain and France, during the reign of George II., necessitated an increased marine; and, at the accession of the late king, the number of vessels was 412, and the tonnage 321,104.

The following Table will enable the reader to inspect the further progress of the navy, which in modern times has often had to cope with the maritime strength of almost all other civilised nations.

TABULAR VIEW of the PROGRESSIVE INCREASE of the ROYAL NAVY.

Year.	Ships.	Tons.	Men voted.	Expense ordinary	Wear and Tear.
1521	16	7,260	——	——	——
1548	53	11,268	7,731	——	——
1578	24	10,506	6,570	——	——
1603	42	17,055	8,346	30,000	——
1624	33	19,400	——	——	——
1641	42	22,411	——	——	——
1658	157	57,000	21,910	——	——
1675	151	70,587	30,260	——	——
1688	173	101,892	42,003	——	——
1702	272	159,020	40,000	129,314	——
1714	247	167,219	10,000	245,700	——
1727	233	170,862	20,000	200,000	——
1753	291	234,924	10,000	280,206	——
1760	412	321,104	70,000	432,629	364,000
1783	617	500,781	110,000	1,763,832	5,406,000
1789*	452	413,667	20,000	1,288,570	1,040,000
1793	498	433,226	45,000	1,056,915	2,304,000
1801	—	——	135,000	1,371,318	9,450,000
1806	—	——	120,000	3,026,183	14,113,000
1813	—	——	145,000	3,021,721	11,534,687

* In 1789 the peace establishment of ships in commission was two second rates, fifteen third-rates, one fourth-rate, five fifty-gun ships, six two-decked forty-fours, thirty-one frigates of thirty-six to twenty guns, and one sloop, besides cutters.

In the ordinary estimates of the navy are included the expenses of the Admiralty, Navy, and Victualling offices, the half-pay, superannuation, and pensions to naval officers, superannuation to civil officers, buildings, repairs and building of ships. In the estimate of the expenses of ships in commission are included wages, wear and tear of ships, victuals, and ordnance.

3. *Light-houses* being of the greatest utility, both to commercial and naval enterprise, the coasting trade in particular, have been multiplied on all the coasts of the British islands, and their construction successively improved, until nothing is left to wish for. At first they were coal, or wood fires, entirely exposed to the weather, and consequently very defective. Towers, with glass casements, were afterwards erected, but the smoke of the fuel soon dimmed the windows and rendered them almost useless. At length, in 1763, oil lamps and reflectors were introduced, which have been brought to the highest perfection.

The light-houses and buoys on shoals are generally under the inspection of the Trinity-House of London, a corporation established in the reign of Henry VIII. by the title of The Master, Warden, and Jurats of the Guild, of the most glorious and undivided Trinity of St. Clement and of Deptford Strond. The Thames river pilots are also within the supervisorship of this corporation. The Dover and Deal pilots form two chartered corporations.

The light houses on the coasts of the British islands are as follows:—

SOUTH COAST.
Longships.
Lizard, two lights.
Eddystone.
Portland, two lights.
Needles, Isle of Wight.

SOUTH COAST.
Hurst Castle.
Owers, floating.
Dengeness.
South Foreland, two lights.

SOUTH COAST.
Goodwin Sands, two floating lights horizontal.
Gull Stream, floating.
Ramsgate Pier.
North Foreland.
Galloper Sand, floating, two lights.
Sunk floating light, entrance of the Thames.
Nore floating light.

EAST COAST.
Harwich, two lights.
Orford Ness, two lights.
Newarp Sand, floating.
Lowestofft, two lights.
Wintertonness.
Haseborough, two lights.
Cromer revolving light, shows a face a minute.
Lynn.
Dudgeon, floating.
Hunstanton.
Spurnhead, two lights.
Flamborough Head, revolving light, shows a face every two minutes.
Humber, two lights.
Sunderland Pier.
Tinmouth revolving light every minute.
Fern Island.
Isle of May. } Frith of
Inch Keith. } Forth.
Pettycur Harbour. } Forth.
Tay River, two lights.
Bell Rock.
Kinnaird's Head

Pentland Skerries, two lights.
North Ronaldsay Island

WEST COAST.
Ilfracomb.
Fatholm Island, Severn
Mumbles Head.
Milford, two lights.
Smalls.
South Stack, Holyhead.
Skerries.
Anglesea.
Point of Air two lights
Sea lights, two. } Liver-
Lake lights, two } pool.
St. Bee's Head.
Walney Island revolving light.

WEST COAST.
Port Patrick, from 1st of September to 1st of May.
Cumbray Island, Clyde
Pladda Island, Arran.
Mull of Kintyre.
Glash Island, Hebrides.
St. Agnes, Scilly.
Caskets, Guernsey.
Isle of Man, Point of Air.
——Douglas from August to April.

IRELAND.
Old Head of Kinsale.
Waterford.
Wicklow.
Dublin, Pigeon House.
—— Howth Head.
Balligan.
Donaghadee.
Copland Island, Belfast.
Loophead, Shannon.

The following TABLE of GEOGRAPHICAL POSITIONS includes most of the LIGHTS round the coasts of GREAT BRITAIN and IRELAND.

Place.	Latitude.	Longitude.
British Islands.	North.	West.
Land's End	50° 4′	5° 41′
Penzance	50 7	5 30
Lizard Point	49 58	5 11
Falmouth, Pendennis Castle	50 9	5 2
Plymouth Dock	50 22	4 10
Eddystone light	50 11	4 15
Dartmouth	50 20	3 35
Exmouth	50 37	3 21
Portland lights	50 31	2 26
Poole	50 42	1 58
Dunnose, Isle of Wight	50 37	1 12
Portsmouth	50 47	1 6
Brighton	50 49	0 7
Beachyhead	50 44	0 15E.
Dungeness light	50 55	0 58
Dover Castle	51 8	1 19
Deal Castle	51 13	1 24
North Foreland light	51 22	1 26
Greenwich Observatory	51 28¾	0 0
London, St. Paul's	51 31	0 5¾w.
Orfordness lights	52 5	1 34E.
Lowestofft lights	52 29	1 46
Yarmouth	52 37	1 43
Lynn Regis	52 46	0 25
Spurn lights	53 37	0 12
Flamborough Head	54 8	0 2w.
Scarborough	54 18	0 24
Whitby	54 28	0 36
Entrance of the Tees	54 38	1 5
Tinmouth light	55 1	1 24
Fern Island light	55 37	1 38
Berwick	55 46	2 0
St. Abb's Head	55 55	2 8
May Island, light	56 11	2 32
Edinburgh	55 36	3 12
St. Andrews	56 41	2 47
Dundee	56 28	2 58
Montrose	56 42	2 28
New Aberdeen	57 9	2 9
Kinnard's Head	57 42	2 1
Inverness	57 31	4 12
Duncan's Bay Head	58 40	3 8
St. Ives	50 13	5 28
Padstow	50 35	4 55
Mort Point	51 11	4 13
Lundy Island	51 10	4 38
Bristol	51 27	2 35
Mumble's Head light	51 34	3 57
Milford Haven, St. Anne's lights	51 40	5 9
St. David's Head	51 54	5 17
Cardigan	52 7	4 42
Holy Head Island, West end	53 18	4 36w.
Liverpool	53 22	2 57
Lancaster	54 2	2 44

Place.	Latitude.	Longitude.
British Islands.	North.	West.
Whitehaven	54° 33′	3° 27′
Mull of Galloway	54 38	4 50
Loch Ryan	55 6	4 57
Mull of Kintyre	55 17	5 41
Cape Wrath	58 36	4 56
Farout Head	58 37	4 45
Dunnet Head	58 42	3 29
English Islands.		
Scilly, St. Agnes Light	49 53	6 19
Isle of Man, Douglas	54 9	4 25
Guernsey, St. Pierre	49 25	2 33
Jersey, St. Aubin	49 12	2 11
Casket lights	49 44	2 26
Scottish Islands.		
Hebrides, Coll Island	56 42	6 20
South Uist	57 5	7 10
Butt of Lewis	58 29	6 12
Orkneys, Pentland, Skerries	58 43	3 5
Mainland, Stromness	59 0	3 25
Zetland Lerwick	60 9	1 6
Foul Island	60 7	2 4
Lambaness	60 53	0 58
Ireland.		
Clare	52 51	9 32
Limerick	52 42	9 11
Loup Head Shannon	52 37	10 24
Dunmore Head	52 13	10 54
Skellig Rocks	51 52	10 32
Cod's Head, Kenmare river	51 43	10 28
Dursey Island	51 37	10 36w.
Bantry Bay, Sheep's Head	51 34	10 4
Cape Clear	51 22	9 37
Kinsale light	51 35	8 29
Cork	51 54	8 28
Youghall	51 43	7 48
Waterford	52 13	7 10
Carnsore Point	52 11	6 18
Wexford	52 22	6 19
Wicklow light	52 59	6 1
Dublin	53 21	6 16
Drogheda	53 44	6 12
Belfast	54 35	5 57
Tor Head	55 12	6 1
Giant's Causeway	55 15	6 29
Galway	53 28	9 13
Broadhaven	54 28	10 18
Sligo	54 22	8 41
Donegal	54 41	8 1
Loch Swilly entrance	55 17	7 —
Mullin Head	55 24	7 25
Londonderry	55 0	7 17

4. *Of the geology of Great Britain.*—Since we have sent to press the article GEOLOGY, Mr. Brande's 'Outlines' have fallen into our hands. He observes that no country furnishes a better selection of geological formations for the attention of the student than our own.

'A section of the south of England, from the coast of Cornwall, for instance,' he says, 'in the west, to London in the east, will furnish a good exhibition of the phenomena of stratification. It will begin at the Land's End with primitive rocks; massive and amorphous. Upon this rest several species of transition rocks, especially slates of different kinds, having various inclinations; and these are succeeded by secondary strata, deviating more and more from the vertical, and acquiring the horizontal position; and ultimately we attain the alluvial matter upon which the metropolis stands. It is principally clay, and has once perhaps formed the mud at the bottom of a salt water lake. Tracing this section from the metropolis to the Land's End,' he says, in explanation of his plate, 'the upper section commences with the blue clay of London, and proceeding westward through the counties of Berkshire, Hampshire, Wiltshire, Dorsetshire, and Devonshire, terminates at the Land's End in Cornwall. The rocks presented in this line are chalk, sandstone, oolite or freestone, lias or argillaceous and magnesian limestone, red sandstone, mountain lime stone or secondary marble, slate, greenstone, serpentine, and granite. The latter frequently penetrates the slaty veins, and is itself pervaded by greenstone.'

Proceeding from London northwards towards the Scotch border, the order of stratification is reversed, and, traversing a highly interesting series of secondary rocks, we arrive in Cumberland at some of the primitive series. This second section (in his plate) commences with the coal strata, and limestone resting upon slate and granite in Cumberland, and thence proceeds towards the metropolis by Yorkshire, Derbyshire, Leicestershire, Northamptonshire, Bedfordshire and Hertfordshire. The passage is here exhibited, from the primary rocks of Cumberland, to the secondary hills of the southern counties. It shows the grit and sandstone containing coal, which lies upon the mountain limestone of Derbyshire, which rock is singularly penetrated by toadstone. In Leicestershire slate and granite again occur, and are succeeded by red sandstone, lias, oolite, sandstone, and chalk, upon which the blue clay of Middlesex is deposited, and of which the valley of the Thames in that county, principally consists. 'The whole arrangement is such as to include the highest and oldest rocks upon the west side of England, forming a chain extending from the Land's End in Cornwall, to Cumberland, and thence to the northern extremity of Scotland. So that the length of Great Britain, and its general shape, appear in a considerable degree dependent upon this chain of mountainous land, and upon two lower ridges, which extend in one direction from Devonshire, through Dorsetshire, Hampshire, and Sussex, into Kent; and, in another, nearly from the same point, to the east of Yorkshire.

'The western ridge is broken in upon in several places by plains and rivers, giving rise to so many chasms in the great chain.

On the subject of the secondary or flœtz formations of Werner, Mr. Weaver, a pupil of this great geologist, thus exhibits the confirmation which his theory receives from the geology of Great Britain.

'It follows, from the whole of these premises, that the flœtz formations of Werner strictly commence with the old red sand-stone of England: and not, as has been stated, with the new or calcareous conglomerate. It follows, also, that the charge of confusion in the views of that naturalist is obviated, and that so far from the flœtz formations which came under his consideration having been few in number, they comprehended th whole series, from the old red sandstone up to the chalk, and above the chalk, gravel, sand, clay, wood-coal, and the newest flœtz trap formation. His arrangement of formations in Germany is, when duly construed, quite in accordance with their succession in the British Isles. There is no hiatus. We travel from the primary to the transition, and thence through the whole series of the flœtz: in which last, let it be observed, that, though the carboniferous series be less fully displayed, yet other formations are in much greater force in Germany, and afford a greater variety of character than is to be found in the British Isles; and here we may perceive the compensating power of nature.

'I have, therefore, yet to learn that more modern enquiries have at all invalidated the general positions of Werner. His grand outlines of the structure of the globe remain unshaken, from the fundamental granite up to the newest flœtz trap. The labors of his followers, and of other geologists pursuing a similar path, have tended more and more to fill up those outlines.

'The Comparative View of flœtz formations, which I submitted to the public in the Annals of Philosophy, October 1821, is consistent with the main positions of Werner, though, from the mode of considering them, there may seem to be some difference: this however is rather apparent than real. It arises from the following circumstances:—1. In the carboniferous series, producing the limestone and the coal as distinct formations, while Werner considered them only as members of his first flœtz sandstone, or rothe todtliegende formation: 2. In like manner, in the gypseous and saliferous series, producing the weissliegende or calcareous conglomerate as a distinct formation; while, by Friesleben and others, it is included in the magnesian limestone formation: 3. As a consequence of the foregoing, in considering the magnesian limestone as belonging to the second flœtz series: and, 4. From distributing the flœtz formations into four principal series, founded, as I conceive, on natural distinctions; namely, on their relative position in the order of succession, their mineralogical characters, the organic remains which they respectively contain, and the mutual affinities of the formations which constitute each series or group. In this view there is no real incongruity; for, in fact, had the carboniferous limestone appeared in force in the north of Germany, it certainly would have been designated by Werner as the

first flœtz limestone; and this according to the established method of that naturalist, who, in arranging the mineral masses of the globe, was led to distribute the predominant into principal formations, and the incidental into subordinate. Bearing this in mind, the carboniferous limestone would have been his first flœtz limestone formation; and, as a necessary consequence, the magnesian limestone would have become his second flœtz limestone. The whole difference, therefore, is a mere question of enumeration.

'In conclusion, I must observe, that, in awarding the meed of praise due to the services of Werner, French writers appear in general to have been more just than the English. Not a few of the latter seem to forget, or not to consider, that, though others might before his time have hit upon the general division of rocks into primary and secondary, yet geology, as a science, had no existence. To Werner belongs, in the first place, the merit of introducing a nicer discrimination in the examination of simple minerals, and of inventing an appropriate language by which they might be described and distinguished, previous to which mineralogical science was quite in its infancy. And, in the second place, to him also belongs the chief merit, not merely of distinguishing and giving names to rocks, but of accurately marking out both the grand distinctions of primary, transition, and flœtz classes, and the various principal formations of which those classes consist. If, then, it be the glory of the Saxon to have laid the broad foundations of the edifice, let that of the Briton and Frank be to complete the structure.'

It has been long doubted whether a genuine crocodile was ever found among the fossil animals of this country. In 1823, however, this question seems to have been set at rest by a specimen discovered in the alum shale near Whitby. We can only copy the following description from the pen of the Rev. George Young, in the Edinburgh Philosophical Journal of 1825, and refer the reader to the work for further particulars accompanied by a drawing.

'The length of the animal, following the curvature of the spine, is fourteen feet six inches; but in its entire state it must have been about eighteen feet long: as the snout is considerably mutilated, and a small portion of the tail also was left in the cliff, owing to the difficulty of extracting the vertebræ. The mutilated state of the snout has been occasioned by its exposure to the atmosphere; in consequence of which successive portions of the muzzle must have been detached, and have dropped down on the beach. Fortunately, another specimen of the head of this animal, having the muzzle complete, is also in the Whitby museum; and it is figured in the drawing, to show the entire length and form of the head. The dimensions of the latter, compared with what we have of the new discovered specimen, show that it has belonged to a specimen only half its size; and hence, to make it correspond with the other, it is drawn on a scale twice as large. The entire head measures two feet three inches; and the imperfect one must, therefore, have been about four feet six inches long; so that, as it now measures only nineteen inches, it must have lost about a yard of its length. The cranium, towards the upper part, is a foot broad in the larger specimen, and half a foot in the smaller. The orbits of the eyes approach near to each other, and look upwards, as in the recent crocodile. They are much smaller than those of the ichthyosaurus. Behind them are two very deep fossæ, of an oblong form, separated only by a thin septum. Before them, at a short distance, are seen the nostrils; in the position of which the animal differs greatly from the common crocodile, which has its nostrils near the end of the muzzle. The great length of the snout is another point of difference; our fossil animal, being, in this respect, more nearly allied to the gavial. The region of the nostrils being injured in the smaller head, they cannot be discerned; but they are very conspicuous in the larger, and in another head of the same animal, in the collection of Thomas Hinderwell, esq., of Scarborough, published in the Geological Survey of the Yorkshire coast, plate XVI., fig. 2, as the head of an ichthyosaurus. The teeth are small and very numerous, and they are arranged in straight lines, as in the ichthyosaurus, and not in the bending or curved form, in which those of the recent crocodile are placed.

'The discovery of this valuable relic of a former world, is not only highly interesting of itself,' says Mr. Young, 'but serves to throw light on other discoveries. When the geological survey of the Yorkshire coast was published, I was inclined to think that no genuine crocodile had been found in our alumshale; but that the fossil animals, so called, had all been fishes, or marine animals furnished with fins; except, perhaps, a few very imperfect specimens. But on comparing this new discovered animal with the one found by Messrs. Chapman and Wooler, in January, 1758, described and figured in the Philosophical Transactions, vol. i., in the Gentleman's Magazine, vol. xxx., and in the Scarborough Catalogue, it would appear that both animals have belonged to one family, and probably to one species, as the head and vertebræ (as far as can be ascertained from Wooler's incorrect drawing), seem to correspond, and as the gentlemen who discovered the animal of 1758 assure us that they observed part of an os femoris, with other bones belonging to a quadruped. The fossil animal of 1791, found between Staiths and Runswick, as noticed in the Geological Survey, p. 263, appears to have been another crocodile.'

Professor Buckland's description of the cave at Kirkdale, in Yorkshire, supposed to contain bones of numerous hyænas, is also a recent contribution to the geology of Great Britain. The professor considers these as establishing the fact that these animals were once natives of this country. The first thing that is observed on entering the cavern is a sediment of argillaceous and slightly micaceous mud, covering the whole of its bottom to the average depth of about a foot, and concealing the actual floor. Upon advancing some way into the cave, the roof and sides are partially studded and cased over with a coating of stalactite, which descends to the sur-

face of the mud, and forms over it a plate or crust, spreading horizontally over its surface like ice over a surface of water. The thickness and quantity of this crust varied with that on the roof and sides, in some places covering the mud entirely, when the stalactite on the sides was most abundant, and in other places being totally wanting, both in the roof and the surface of the mud. A great part of this crust had been destroyed in digging up the mud to extract the bones; but professor Buckland saw several places where the stalactitic crust was very thick, and formed a continuous bridge across the mud. In some cases insulated stalagmites, have been formed on the surface of the sediments by drops from the roof, but they are commonly not larger than a cow's pap, the name by which the workmen distinguish them.

The bones have been found enclosed in the stalagmites, formed before the introduction of the mud, but principally in the lower part of the sediment. A few perfect bones have been obtained, but most of them are broken into small angular fragments and chips, lying separately in the mud, whilst others are wholly or partially invested with stalactite. The action of this mud in preserving the bones from decomposition is very remarkable, and professor Buckland found that almost the whole of their gelatine was preserved. The following table will show the nature of the bones which have been discovered, and the animals to which they have belonged

Hyæna	Forty fragments of jaw-bones; several hundred canine teeth, which must have belonged to more than 100 individuals.
Tiger	Two large canine teeth, four inches long, and one under tooth.
Bear	One tusk, like that of the ursus spelæus of the German caves.
Wolf	Many teeth.
Fox	Many teeth.
Weasel	A few jaws and teeth.
Unknown animal, of the size of the wolf	Several teeth.
Elephant	Two teeth.
Rhinoceros	Forty or fifty teeth.
Hippopotamus	Six molar teeth, and fragments of its canine and incisor teeth.
Horse	Two or three teeth; coronary bone.
Ox, (two species)	Astragalus, phalangal bone, and several teeth.
Three species of deer	Several teeth; remains of horns.
Rabbit	A few teeth and bones.
Water rat	A great number of teeth and bones.
Mouse	A few teeth and bones.
Raven	Right ulna.
Pigeon	Left ulna.
Lark	Right ulna.
A small species of duck	Right coracoid process of the scapula.

Upon first removing the mud the bottom of the cave was strewed all over like a dog-kennel, from end to end, with hundreds of teeth and bones, or rather broken and splintered fragments of the bones of all the animals above enumerated. They were found most abundantly near its mouth; those of the larger animals, such as the elephant, rhinoceros, &c., occurring as extensively as all the rest, even in the inmost and smallest recesses. With the exception of the hard and solid bones, scarcely a single bone has escaped fracture; and in some of them marks may be traced, which, on applying one to the other, appear exactly to fit the form of the canine teeth of the hyænas that occur in the cave.

From this comminuted and gnawed condition of the bones, professor Buckland concludes that the cave at Kirkdale had been inhabited during a long succession of years as a den, by hyænas, who had dragged into its recesses the other animal bodies whose remains are found mixed with their own. This conjecture received a very interesting confirmation from the discovery made by professor Buckland, of many small balls of the solid calcareous excrement of an animal that had fed on bones. This substance was at first sight recognised by the keeper of the menagerie at Exeter Change, as resembling, both in form and appearance, the fæces of the Cape hyæna which was greedy of bones beyond all other beasts under his care. As the bones of the hyænas are as much broken to pieces as those of the other animals, professor Buckland likewise infers, that the carcases even of the hyænas themselves have been eaten by the survivors. The modern hyæna is about one-third smaller than the fossil animal.

5. *The state of the arts in Great Britain* requires some further attention than we have as yet bestowed upon the subject.

While the continental nations were cultivating the imitative arts, England was engaged with those more solid pursuits of science which became the basis of her modern fame, and manufactures. Then arose her Newton, her Boyle, and her Locke; then were founded her Royal Society and various kindred institutions, all of which have fostered her genius for the *application* of science to practical life. In no country have equally laborious and persevering effects been made to abridge labor, produce superior articles

at the least expense; and turn to the fullest account the productions of the surface, and the most remote depths of the earth. Even her Davy willingly attaches his fame to the invention of a *afety-lamp* for miners.

This peculiar bias of the country towards the useful rather than the fine arts has been well illustrated in a late number of the Edinburgh Review. Speaking of the French periodical 'exhibitions' of the products of their industry, this writer observes, 'No body of British manufacturers, we are persuaded, would submit to be actors in such a theatrical pageant. The only exhibition about which an Englishman cares is the diffusion of wealth and comfort in all its shapes; and he measures it, not by its surface or its brilliancy, but by its depth and its solidity. He does not collect rare specimens into palaces, that princes may gaze at them; he spreads out his every-day productions over the world, that men may imitate and enjoy them. The cottages and hamlets of the peasants, the neat mansions of the yeomanry, the larger habitations of the more wealthy, and all the gradations of dwellings up to the palace of the monarch, are the places where the products of British industry are to be found, not exhibited, but in use; and where active comfort reigns in every due proportion. To a Frenchman, indeed, exhibition is the limit of ambition; and the industry of which he can make a parade is that which he will ever most value. Even while we look back—and forward—on the changes of empires and the overthrow of states, the rise of some upon the ruins of others, and the dread and interminable rotations of the wheel of fortune, we cannot but feel there are characters inscribed on the hearts of nations which fortune can never wholly erase. What has long been among multitudes has, for the most part, wisely been; and it is allowing too little to habit, to say, that it is our second nature. It is more commonly the symbol of our first impulses, and our first feelings; the expression of an original bias, no matter how or when impressed, but continued to our latest years. Of this kind is the industry of England, together with the habit of reflection, by which it has been matured; not a result from any of the fortuitous events which chance has brought to light, and may again overwhelm in darkness; but a deep and indestructible proclivity, more long and lasting than her power itself. The splendor of nations may pass away; their wealth may be swallowed up in the vortex of revolutions; and the strength of to-day may be weakness to-morrow. But their characters are not thus to be effaced, nor their genius to be extinguished. With the power of Greece, the characteristic vivacity of her intellect did not perish: and when the martial ardor of Rome, the last of all her virtues which forsook her, had become the dream of past ages, another spirit of glory, more peaceful, though not less ambitious, took possession of her soul; and the world beheld with admiration, a successive sceptre in her hands. The seat of the useful arts, of those which mankind bless, and by which they are blessed, of those which the heart reveres, and the understanding approves, is Britain:—and should her armies be laid low,—should wars or tempests sweep her fleets from the ocean,—should even her star of liberty grow dim; she may yet hold her empire over the mind, and maintain a place among the nations, by the united influence of sense, industry, and beneficence.'

But, in the fine arts, those nations who have cultivated them more have allowed Great Britain to have some claims to distinction. Do we include in them the higher departments of literature? Of the present state of English poetry Madame de Stael has said:—'English poetry, which is fostered neither by irreligion, nor the spirit of faction, nor licentiousness of manners, is still rich and animated, experiencing nothing of that decline which threatens successively the literature of most other countries in Europe. Sensibility and imagination preserve an immortal youth of mind. A second age of poetry has arisen in England, because enthusiasm is not there extinct, and because nature, love, and country, always exercise great power there. Cowper lately, and now Rogers, Moore, Thomas Campbell, Walter Scott, lord Byron, in different departments and degrees, are preparing a new age of glory for English poetry; and, while every thing on the continent is in a state of degradation, the eternal fountain of beauty still flows from the land of freedom.' She further remarks, that 'English works on criticism, and in particular most of their treatises on poetry and the imitative arts, are distinguished by greater freedom, originality, and knowledge of the antique, and bear on these accounts a greater affinity to our own (German) modes of thinking, than those of the French.'

'Of all the works connected with elegant literature, which the English produced during the last century,' says M. Schlegel 'by far the most important are their great historical writings. They have in this department surpassed all the other European nations; they had at all events the start in point of time; and have become the standard models both in France and Germany.

Speaking of painting, and similar topics, 'In the commencement of the reign of George I.,' says Horace Walpole, 'the arts of England were sunk almost to the lowest ebb.' Portraiture, it is true, had been at this time successfully practised by Dobson, Riley, Cooper, Greenhill, Jervas, and Richardson, but by none with any remarkable eminence. It was not, however, to continue always thus: the time at length arrived when the English artists appeared not only desirous but capable of raising the character of their country, in this respect, to a level with that of any other nation.

The principal difficulty was to rescue the art from the degrading influence of a vicious taste, to retrace the steps of our predecessors (or rather to burst the bandages in which they had enthralled us), and resort at once to the original principle of imitation; which, when pure and select, is the only sound basis of the art. The first step towards this reformation was the establishment of a school for drawing from the living figure. This had been begun by Sir James Thornhill, in conjunction with Sir Godfrey Kneller, who, however, one would imagine, from his latter works, had left all consideration

of the value of such a thing far behind. He certainly assisted, however, in laying the foundation of a remedy for the evil which he, more than any other man, had occasioned. This school Sir James continued at his own house in the Piazza for some years. His death, in 1734, obliged the artists to procure another situation, which was not effected without some difficulty; for the people at first regarded the study from the naked figure as immoral. Another school was at length formed by Michael Moser, a native of Schaffhausen, and a chaser by profession, and six other artists, principally foreigners, the management resting with Moser. After a while, they were visited by Hogarth and others, and a larger body was formed in consequence, who established themselves in Peter's Court, St. Martin's-lane, in the year 1739. Having acquired some property by combined exhibitions of their works, they solicited a charter of incorporation, and, the scheme being sanctioned by his late majesty, their charter was granted in 1765. But, dissensions arising in the body, a secession of many of its principal members took place, and the result was the establishment of the Royal Academy in 1768, under the more immediate patronage of the king; Sir Joshua Reynolds being nominated its first president.

On the success of Hogarth, Reynolds, and Wilson, several other societies were also formed throughout the kingdom, for the avowed purpose of patronising and cultivating the imitative art.

Richardson, whose tracts ought to be known to every student and amateur of painting, died in 1745, at the advanced age of eighty. He was a bad painter, but his treatises on the art are full of enthusiasm, and of judicious observations on the theory of the art. Of one of these Sir Joshua Reynolds declared, that it had confirmed him in his love of the art, and elevated his ideas of its professors. Richardson contended strenuously for the propriety of painting portraits in the costume of their time; thus striking at the absurd system of flowing robes, which had been adopted by Kneller.

This period may be denominated the infancy of English art; and it is not a little curious, that, at the time when painting was verging towards a state of hopeless decline all over the continent of Europe, it should have revived, and that to no small purpose, in these islands, the inhabitants of which had been frequently taunted by foreigners as unable to execute a fine painting. We shall not dwell on its incipient state of improvement; indeed, the commendations bestowed on the painters alluded to above regard the principle of imitation rather than the thing imitated, since nothing could possibly be more untasteful or repulsive than the stiff, starch, and unsightly uniform (both male and female) of those days. But, the principle of attention to actual representation once established, it soon produced the fruits of a better taste in the art generally; and, accordingly, it was not long before the matchless talent of Hogarth beamed forth in unapproachable splendor to gild the onward progress of the muse of painting, and to herald the appearance of a kindred genius in the person of Sir Joshua Reynolds.

Sir Joshua was the first president of the Royal Academy; and on his return from Rome, at a previous part of his life, carried the art (at least as far as regards portrait-painting) to its very highest point of perfection.

What Reynolds did for portrait-painting, his distinguished contemporary, Wilson, did for landscape. He also had studied at Rome, and brought home from thence a refined taste, and a power of execution at once chaste, glowing, and brilliant: while, in the historical department, Sir Joshua's successor, the late lamented Mr. West, without rivalling either of the three great names just mentioned, yet displayed sufficient ability to throw completely into the back ground what had been previously produced by the successors of Sir James Thornhill, Hayman, Pine, and Whale. Besides West, honorable mention must ever be made of the names of Romney, Opie, Barry, and Fuseli.'

The present state of painting in this country is certainly encouraging to the lover of art. In portrait, besides the highly-gifted president of the academy, Sir Thomas Lawrence, we have several other eminent professors: in landscape, and marine subjects, Turner and Callcott are at the head of a numerous body of followers. The pencil of Wilkie throws a brilliant lustre over both the humorous and pathetic departments of art; and in the arduous walk of history (a walk of art which, although it is entitled, when successfully pursued, to the highest honors, is too often followed without either profit or distinction), there are several names which we might select, whose bearers appear to us qualified to elevate the national reputation far higher than it has ever hitherto been raised. For the truth of these observations, we need only appeal to the annual exhibitions both at Somerset House and at the British Institution.

In sculpture, England, down to the Reformation, kept pace, at least, with her continental neighbours, as the west front of the cathedral of Wells (executed in the reign of Henry III.), Exeter, Litchfield, and Salisbury cathedrals, but more especially Henry VII's. chapel in Westminster Abbey may testify. After this period we became for a time superstitiously afraid of superstition; and whatever painting or statuary was required for the decoration of houses, tombs, &c., was supplied from abroad. The best existing specimens of this imported skill is found in the statues of raving and melancholy madness at the New Bedlam gates, the bas relief on the pedestal of the London column, the kings in the Royal Exchange, &c.: Roubilliac executed several of the best monuments for Westminster Abbey.

The establishment of the Royal Academy has been the resurrection of this art. Banks, Bacon, and Flaxman need only be named to prove this; and many of the works of living sculptors may be with advantage compared with the best productions of the continent.

Before the Reformation there was but one kind of music in Europe worth notice, the plain sacred chant, and the descant built upon it.—That music likewise was applied to one language only, the Latin. Hence the compositions of

Italy, France, Spain, Germany, Flanders, and England, kept pace with each other in style and excellence. All the arts seem to have been the companions of successful commerce, and during the sixteenth century became general in every part of Europe. In this century music was an indispensable part of polite education. There is a collection preserved in MS. called Queen Elizabeth's Virginal Book. Tallis, profound in musical composition, and Bird his admirable scholar, were two of the authors of this collection.

In the seventeenth century musical writers and composers, who acquired fame in England, were, Dr. N. Giles, Thomas Tomkins and his son, Elway Bevin, Dr. Orlando Gibbons, William Lawes, Dr. John Wilson, Hilton, Playford, captain Henry Cook, Humphrey, Dr. Blow, Dr. Turner, Dr. Christopher Gibbons, Dr. Benjamin Rogers, and Henry Purcell. About the end of the reign of James I. a music lecture or professorship was founded in the university of Oxford by Dr. William Hychin. In the reign of Charles I. a charter was granted to the musicians of Westminster, incorporating them as the king's musicians, into a body politic, with powers to prosecute and fine all who, except themselves, should 'attempt to make any benefit or advantage of music in England or Wales.'

About the end of the reign of Charles II. a passion was excited in England for the violin, and for pieces composed for it, in the Italian manner. Prior to 1600 there was little other music except masses and madrigals; but, from that time to the present, dramatic music became the chief object. The year 1710 is distinguished in the annals of music by the arrival in Britain of George Frederic Handel. See HANDEL. The fame of this great musician, if not altogether the property, may redeem the musical taste of this country from that utter contempt in which some foreign writers hold it: for here he was cherished and enriched. Since Purcell's time the chief composers for the church in England have been Clark, Dr. Holder, Dr. Creighton, Tucker, Dr. Aldrich, Goldwin, Weldon, Dr. Croft, Dr. Greene, Dr. Boyce, Dr. Nares, Kent, and Stanley, and finer cathedral music is known in no part of the world. On the state of ENGRAVING in England, see that article.

6. *Our colonial establishments and dependencies* may be thus exhibited :—

IN EUROPE.

Guernsey, Jersey, Isle of Man, Gibraltar, Malta, Heligoland.

IN ASIA.

India,
Ceylon,
Prince of Wales's Island,
Bencoolen,
Isle of France,
New South Wales, or Botany Bay.

IN AFRICA.

Cape of Good Hope, Sierra Leone, Cape Coast, St. Helena.

IN AMERICA.

Continent.—Canada, Upper and Lower, New Brunswick, Nova Scotia.
Islands.—Cape Breton, St. John's, Newfoundland, Bermuda.

IN THE WEST INDIES.

Jamaica,
The Leeward Islands,
The Windward Islands,
The Bahamas,
The Virgin Islands,
On the Continent.—Demerara, Essequibo, Berbice, Honduras.

The territorial extent of our Indian Empire is taken at 350,000 square miles, and the population at 50,000,000. The average of exports from England to India (exclusive of China), in a series of six years, ending 1811, was

On account of the East India Company	£1,371,666
——— of private merchants trading to India . . .	453,666
——— of the captains and officers of the company's shipping.	418,333
	£2,243,665

Including the specie exported.

The value of goods imported is increased by the freight, interest of money, expected profit, &c.; and, though fluctuating, may be averaged at this period at £3,000,000 sterling; and the seamen employed, at 6000. Since the trade has been laid open to the out-ports, it has been much altered, and has been so fluctuating as at present to be altogether uncertain in amount. The tonnage of shipping cleared outwards to the East Indies, was, according to the custom-house returns, dated 1st of May, 1818:—

	1815.	1816.	1817.
From London . .	78,431	87,866	85,172
—— Liverpool and other ports in Britain . .	1,549	10,655	19,456
	£79,980	£98,521	104,628

The China trade still remains exclusively in the East India Company. The annual exports, chiefly in broad cloth, are from £1,000,000 to £1,200,000: the imports are tea, in vast quantities; nankeens, and silk. This trade employs about 20,000 tons of shipping, and 2000 seamen.

To Canada, the settlements on Hudson's Bay, Nova Scotia, and New Brunswick, with the islands of Newfoundland, St. John, and Cape Breton, contain a surface of 220,000 square miles, but not above 500,000 inhabitants. Our exports vary from £1,000,000 to £2,000,000 sterling. Our imports from Canada consist of furs and skins. From Nova Scotia and New Brunswick we receive timber; from Newfoundland,

fish, and seal skins. The commerce is considerable between our West India and North American colonies; fish, flour, and staves, being exchanged in great quantities for rum, coffee, and sugar. The shipping employed between Great Britain and the North American Colonies, were

	Ships.	Tons.	Men.
In 1805 . .	288	52,412	2,707
1814 . .	392	81,939	4,277
1815 . .	672	145,448	7,241

The imports into Britain from, and exports to the West Indies, in official value, were in the years following:—

Years.	Imports.	Vessels entered Inwards.		Exports.
		Ships.	Tons.	
1763	2,349,006			1,154,109
1773	2,836,093			1,335,773
1783	2,891,805	614	124,239	1,796,982
1793	4,392,158	689	156,962	2,695,220
1798	5,411,962	637	163,399	5,197,913
1803	6,040,067	614	180,950	2,344,647
1808	8,716,918	805	228,082	5,850,773
1814	8,200,506	685	212,776	6,284,353
1815	8,371,193	701	223,246	6,862,371
1816	7,428,617	680	219,042	4,559,665

But the average size of a West Indiaman, which, in 1783, was only 200 tons (registry), is now fully 320. The revenue arising from West India imports is £5,000,000, annually, of which about £3,000,000 are from sugar; the rest chiefly from rum. The trade of these colonies has been long exposed to great fluctuations.

On the whole it has been calculated, that the authority of Britain extends over nearly two-thirds of the globe, with respect to longitude. There are consequently, various places within these limits that have noon and midnight at the same moment, and the sun never sinks below the horizon of the whole. Stretching also from the sixty-first degree of north latitude to the thirty-third of south, the four seasons of the year prevail at the same time. 'It appears, in fact,' says a modern writer, 'that at this time the British possess more territory, more wealth, greater variety of produce, greater population, superior religion, as much liberty, greater security, more commerce, superior agriculture, and greater revenues, than ever were possessed by any other nation, ancient or modern.'

GREAT ISLAND, an island in Bass's Strait, between New Holland and Van Diemen's Land, about forty miles long, and from fifteen to twenty in breadth. The soil is shallow, and vegetation low. The shore is frequented by immense quantities of seals and sea-fowl. Long. 148° E., lat. 40° S.

GREAT ISLAND, an island on the coast of Ireland, in the county of Cork, five miles long, and from one to three broad. It is formed by the river Lee in Cork harbour.

GREAVE, *n. s.* Sax. ȝɼæf. A grove.

This chorle wos hid there in the *greves*
Ycovired with grasse and leves.
Chaucer. Romaunt of the Rose.

Yet when there haps a honey-fall,
We'll lick the sirupt leaves,
And tell the bees that theirs is gall
To that upon the *greaves*. *M. Drayton.*

GREAVES, *n. s.* From Fr. *gréves*. Armour for the legs; a sort of boots. It wants the singular number.

He had *greaves* of brass upon his legs. 1 *Sam.* xvii.

A shield make for him, and a helm, fair *greaves*, and curets such
As may renown thy workmanship, and honour him as much. *Chapman's Iliads.*

GREAVES (John), an eminent physician and antiquary, was born in 1602, and educated at Baliol College, Oxford, from which he removed to Merton. He was afterwards chosen professor of geometry, in Gresham College. His ardent thirst of knowledge led him to travel into several parts of Europe. He next undertook a voyage to the east, where, with indefatigable industry, and even at the peril of his life, he collected a considerable number of Arabic, Persic, and Greek MSS. for archbishop Laud. He also collected for that prelate many oriental gems and coins, and took a more accurate survey of the pyramids than any traveller who went before him. On his return from the east he visited several parts of Italy a second time. Soon after he finished his second voyage he was chosen Savilian professor of astronomy at Oxford, for which he was eminently qualified. His books relating to Oriental learning, his Pyramidographia, or a description of the pyramids in Egypt, and his Epochæ Celebriores, prove him to have been a man of no small literary attainments. He died in 1652.

GREBNA, a town of European Turkey, in Thessaly, situated at the junction of a number of roads leading from Albania, Livadia, and the north-east of Macedon. It is a place of considerable traffic, and the country adjacent is fertile. Fifty miles north by east of Joannina, and fifty-six south-west of Salonica.

GRE'CISM, *n. s.* Lat. *græcismus*. An idiom of the Greek language.

GRECOURT (Jean Baptiste Joseph Villart de), a French ecclesiastic and poet, was born in 1683 at Tours, in which city he obtained the benefice of St. Martin. But he was found more commonly at Paris, where he had received his education, and associated with most of the leading wits of his day, particularly with the marechal d'Estrées. He excelled in epigrams, tales, and sonnets, a collection of which was made and published, in three octavo volumes, about twenty years after his decease, in 1743.

GREE, *n. s.* Fr. *gré*, probably from *gratia*. Good will; favor; good graces. Obsolete.

For sith a woman wos so patient,
Unto a mortal man, wel, more, we ought
Receiven all in *gree* that God us sent.
Chaucer. The Clerkes Tale.

And falling her before on lowly knee,
To her makes present of his service seen,
Which she accepts with thanks and goodly *gree*.
Spenser.

GREECE.

GREECE, *n. s.* Corrupted from degrees. It is written likewise greeze or grice. A flight of steps. Obsolete.

Every *greece* of fortune
Is smothered by that below. *Shakspeare.*

After the procession, the king himself remaining seated in the quire, the lord archbishop, upon the *greece* of the quire, made a long oration. *Bacon.*

GREECE, in many respects the most deservedly celebrated country in the world, was anciently bounded on the north by Macedonia and the river Strymon; on the west by the Ionian Sea; on the south by the Mediterranean; on the east by the Egean Sea and Archipelago. It extended from the Strymon, by which it was parted from Thrace, to the promontory of Tænarus, the southmost point of the Peloponnesus, now the Morea, about 6° 20′ of latitude, or nearly 440 English miles, and in breadth from east to west about 359 miles.

The general names by which the inhabitants of this country were known to the ancients were those of Graioi, or Graicoi, whence the name of Greece is plainly derived. These are thought to come from Græcus, the father, or (according to some) the son, of Thessalus, who gave name to Thessaly; but some modern critics derive them from Raga, the same with Reu, the son of Peleg, by the transposition of a letter to soften the sound. These names were afterwards changed for Achæi or Achivi, and Hellenes; the first, as is supposed, from Achæus, the son of Xuthus, the son of Hellen, and father of Ion; or, according to the fable, the son of Jupiter: the other from Hellen, above mentioned, the son of Deucalion, and father of Dorus, from whom came the Dores, afterwards a famous nation among the Greeks. Another name by which the Greeks were known, in some parts of the country, was that of Pelasgi, which the Arcadians, the most ancient people in Greece, deduced from their pretended founder Pelasgus; who is said to have obtained such footing in Peloponnesus, that the whole peninsula from him was called Pelasgia. But the most ancient name of all is universally allowed to have been that of Iones, which the Greeks themselves derived from Ion, the son of Xuthus; or, as the fable has it, of Apollo, by Creusa the daughter of Erechtheus the grandson of Deucalion. Josephus, however, affirms, that their original is of much older date; and that Javan, the son of Japhet, and grandson of Noah, was the first who peopled these countries; which Bochart has also rendered very probable. It is true, indeed, that among the Greeks themselves, only the Athenians and such colonies as sprung from them, were called Iones; but it is also plain beyond exception, that other nations gave this name to all the inhabitants of Greece.

The inhabitants of Greece in the first ages, according to their own historians, appear to have been perfectly barbarous. They lived indifferently on every fruit, herb, or root that came in their way; and lay either in the open fields, or at best sheltered themselves in dens, caves, and hollow trees: while the country itself remained one uncultivated desert. The first improvement they made, was the exchanging of their old food for the more wholesome acorns, building huts for themselves to sleep in, and covering their bodies with the skins of beasts. For all this, it seems, they were beholden to Pelasgus, above mentioned (supposed by some to be the Peleg of Scripture), and who was highly reverenced by them on that account. This reformation in their way of life, however, it seems, wrought none in their manners. On the contrary, they who had nothing to fight for but a hole to sleep in, began now to envy and rob one another. This, in process of time, put them under a necessity of joining themselves into companies under some head, that they might either more safely plunder their neighbours, or preserve what they had got. Laws they had none except that of the sword; so that those only lived in safety who inhabited the most barren and craggy places; and hence Greece for a long time had no settled inhabitants, the weak being always expelled by the strong. Their gigantic size and strength, if we may believe Plutarch, added so much to their insolence and cruelty, that they seemed to glory in committing the greatest acts of violence and barbarity on those that unhappily fell into their hands.

The next advance towards civilisation was their forming themselves into regular societies to cultivate the lands, and build towns and cities. But their original barbarity and mutual violence prevented them from uniting as one nation, or even into any considerable community: and hence the great number of states into which Greece was originally divided. The most remarkable of these small principalities mentioned in history are the following: in Peloponnesus were those of Sicyon, Argos, Corinth, Messenia, Arcadia, and Lacedæmon. In Græcia Propria (that part of Greece which lay without Peloponnesus), were those of Attica, Megaris, Bœotia, Locris, Epicnemidia, Doris, Phocis, Ozolæa, and Ætolia. In Epirus, were the Molossi, Amphilochi, Cassiopæi, Dryopes, Chaones, Thesproti, Almeni, and Acarnanes. In Thessaly were those of Thessaliotis, Estiæotis, Pelasgiotis, Magnesia, and Phthiotis. All these were at one time or other severally governed by kings of their own, though we only find the names of some of them mentioned in the histories of the more considerable kingdoms of Sparta, Attica, Thebes, &c.

The erection of these kingdoms, however, for some time, did not much alter their manners; the inhabitants of the new kingdoms plundered and destroyed one another without mercy. Attica was the only place in any degree free from these incursions, because it was naturally destitute of every thing that could invite a plundering enemy; but those cities fared much worse which were situated on the sea-coasts; because they were in continual danger of being plundered either by sea or land; for pirates at that

time did not less infest all those seas than robbers did the land. And this was one main cause why most of the ancient cities of Greece were situated at some considerable distance from the shore; but even in these, as all their safety consisted in the resistance they could make against an invader, their inhabitants were under a necessity of going constantly armed, and being ever on their guard. Another mischief arising from these continual piracies and robberies was, that they occasioned the far greater part of the lands to lie uncultivated, so that the people only planted and sowed as much as was barely necessary for their support; and, where there was so great a neglect of agriculture, there could be little room for any discoveries in other useful arts and trades. Hence when other nations, as the Jews, Egyptians, Midianites, Phœnicians, &c. had improved themselves to a very high degree, the Greeks seem to have been utter strangers to every useful art. During this period of savage barbarity, the most renowned Grecian heroes as Hercules, Theseus, &c., performed their exploits; which, however exaggerated by poetic fiction, no doubt had a foundation in truth. Some, indeed, are of opinion, that the Grecian heroes are entirely fictitious beings. Yet, considering the extreme degree of barbarity which at that time prevailed throughout Greece, it seems not improbable, that some persons of extraordinary strength and courage might undertake the cause of the oppressed, and travel about like the more modern knights errant in quest of adventures.

The first expedition in which we find the Greeks united, was that against Troy, for the particulars of which, see TROJA and TROY. Their success in this war (which happened about A. A. C. 1184), cost them very dear; vast numbers of their bravest warriors being slain, and great numbers of the survivors cast away on their return. It is probable, however, that their having staid for such a long time in Asia, might contribute to civilise the Greeks somewhat sooner than they otherwise would have been; and accordingly, from this time, we find their history somewhat less obscure. The continual wars, indeed, in which they were engaged among themselves for a long time, prevented them from making any considerable progress in the arts; while they preserved their liberty, and rendered them brave, and skilful in military affairs: at the same time they effectually prevented them from making permanent conquests, and confined them within the bounds of their own country. The states, too, were so equally balanced, that scarcely one of them was able perfectly to subdue another. The Spartans, however, having with great difficulty reduced the kingdom of Messene, and added its territories to their own, became the leading people in Greece. Their superiority was long disputed by Athens; but the Peloponnesian war at last determined that point in favor of the Spartans, when the city of Athens was taken, and its walls demolished by Lysander the Spartan general. See ATTICA and SPARTA.

By the battle of Leuctra, the Spartans lost that superiority which they had maintained for 500 years, and which now devolved on the Thebans. After the death of Epaminondas, the celebrated Theban general, however, as no person was found possessed of his abilities, the Thebans were again obliged to yield the superiority to the Spartans. But by this time the Greeks had become acquainted with the luxuries and elegancies of life; and all the rigor of their original laws could not prevent them from valuing these as highly as other people. This did not indeed abate their valor, but it heightened their mutual animosities; at the same time that, for the sake of a more easy and comfortable life, they became more disposed to submit to a master. The Persians, whose power they had long dreaded, and who were unable to subdue them by force of arms, at last found out, by the advice of Alcibiades, the proper method of reducing the Grecian power, namely, by assisting them by turns, and supplying one state with money to fight against another, till they should all be so much reduced, that they might become an easy prey. Thus the Greeks were weakened, though the Persians did not reap any benefit from their weakness. Philip of Macedon entered into the same political views; and partly by intrigue, partly by force, was declared generalissimo of Greece. His successor, Alexander the Great, completed their subjection; and by destroying the city of Thebes, and exterminating its inhabitants, struck such a terror throughout Greece, that he was as fully obeyed by all the states as by any of the rest of his subjects.

During the absence of Alexander in Persia the Greeks attempted to shake off the Macedonian yoke, but were quelled by his general Antipater. The news of Alexander's death was to them a matter of the utmost joy; but their mutual animosities prevented them from joining in any solid plan for the recovery of their liberties, and hence they continued to be oppressed by Alexander's successors, or other tyrants, till Aratus, the Achæan, about 268 B. C., formed a design of setting his country free from these oppressors. He persuaded a number of the small republics to enter into a league for their own defence, which was called the Achæan league; and notwithstanding that the republics, taken singly, had very little strength, they not only maintained their independency, but soon became formidable when united. This association continued to become daily more and more powerful; but received a severe check from Cleomenes III. king of Sparta, which obliged them to call in Antigonus to their assistance. This prince overcame Cleomenes at the battle of Sellasia, and afterwards made himself master of Sparta. Thus he became a more formidable enemy than the one he had conquered, and the recovery of the Grecian liberties was incomplete. Soon after this the Greeks began to feel the weight of a power more formidable than any which they had yet experienced; namely, that of the Romans. That insidious and haughty republic first intermeddled with the Grecian affairs, under pretence of setting them at liberty from the oppresion of Philip VI. of Macedon. This, by a proper union among themselves, they might have accomplished: but they acted as

though they had been infatuated: receiving with the utmost joy the decree of the Roman consul, who declared them free; without considering, that he who had thus given them liberty, might take it away at his pleasure. This lesson, however, they were soon taught, by the total reduction of their country to a Roman province; yet this can scarcely be called a misfortune, when we look back to their history, and consider their outrages upon one another: nor can we sympathise with them for the loss of that liberty which they only made use of to fill their country with slaughter and blood. After their conquest by the Romans, they made no united effort to recover their liberty; but continued in quiet subjection till the beginning of the fifteenth century. About that time they began to suffer under the tyranny of the Turks, and their sufferings were completed by the taking of Constantinople in 1453. Since that time they have groaned under the yoke of this most despotic government.

Greece, Modern. Of this country, so intensely interesting to the scholar, the artist, and the antiquary, we have been, as lord Byron obsérves, 'more neglectful than it deserves;' ancient recollections and associations have so much influence, as completely to absorb the attention of the traveller, and render him almost unconscious of the present race of mortals, and careless of the existing state of Greece.

> Yet are her skies as blue, her crags as wild,
> Sweet are her groves and verdant are her fields,
> Her olive ripe as when Minerva smiled,
> And still his honied wealth Hymettus yields;
> There the blythe bee his fragrant fortress builds,
> The free-born wanderer of her mountain air;
> Apollo still her long, long summer gilds,
> Still in his beam Mendeli's marbles glare:
> Art, glory, freedom fail, but nature still is fair.

As a proof of the little attention that has been paid to this country and the want of taste and feeling prevalent in some quarters, it has been observed that Pinkerton has devoted only one page of his three huge quarto volumes to the whole of Greece, about six lines to the description of Attica, and half a line to inform the reader that Atini, the ancient Athens, is thinly populated.

A general sympathy was manifested from one end of Europe to the other, when, in the year 1820, the first symptoms appeared of a rising of the enslaved Greeks; all civilised nations seemed disposed to aid the oppressed, and to pay back to the descendants some part of what the world owes to their ancestors. If, indeed, this movement has not at present produced much of permanent effect, we may attribute it to the insensibility of statesmen, whom the voice of humanity can only move when it accords with their political views: we may observe that the same policy, which in 1813 and 1814 sympathised with an oppressed people, and encouraged them to shake off the yoke, in 1822 doomed them to submit to a prolongation of their calamities under pain of being declared rebels. The wish of certain cabinets to furnish a counterpoise to American liberty, in fact, has paralysed this noble effort of humanity. 'In vain,' as one of her eloquent French advocates observes, 'ravaged and ruined Greece stretched its imploring hands towards Europe, and entreated its compassion, in the name of that merciful religion which is common to all Christians; in vain it exhibited to the view of independent nations its degradation and misery; it was abandoned to despair. Posterity will hardly believe that, in an age in which statesmen have made so much parade about peace and order, men, to whom it would have been easy to stop the fury of the Turks, have insulted misfortune by disgracing with the name of rebellion the patriotism of the Greeks, and suffered the barbarians to assuage their thirst of vengeance on a handful of Christians already crushed by their exactions. Can it seem astonishing that the Greeks should sink in a struggle, in which Turks and Christians were leagued against them?' It must be left to time to disclose the issue of this struggle; in the mean while it is interesting to retrace its past events, to examine this classic soil, on which the ancients exhibited so many sublime examples of patriotism and all the civic virtues, to contemplate the ruins which recal to our minds their civilisation, their arts, their superstitions, and their exploits; and to gain some tolerably exact idea of the theatre of so many great events, and which is destined perhaps to present others not less astonishing.

We shall then give, I. A rapid and general description of the countries inhabited by the Greeks; then treat of Greece properly so called under the divisions. II. Of Great Greece, or Livadia. III. Of the Peloponnesus or the Morea; and IV. Of the Archipelago, of which our notice must be very slight.

I. The peninsula of Greece juts out into the Mediterranean Sea, like the peninsula of Italy, but extends several degrees farther to the south. It may be assumed to be contained between the parallels of 41° 30′ and 36° 20′ N. lat., and 18° 10′ and 22° E. long., commencing from the head of the gulf of Salonica on the east, and that of Aulona on the west, and reaching to Cape Matapan on the south. It consists properly of two peninsulas, one extending from the northern limits already mentioned to Cape Colonna (the ancient Sunium) in the south, being about 200 miles in length, and 100 in breadth, with an area of about 20,000 square miles, and united to the other, or that of the Morea (the ancient Peloponnesus) by the isthmus of Corinth; this peninsula contains a surface rather less than half of the former country. The islands of the Archipelago may be about equal in extent to the Morea, stretching more than four degrees farther to the east. The entire district is bounded on the north by the Turkish provinces of Roumelia and Albania (see Albania); on the west by the Adriatic Sea, which separates it from the south-eastern part of Italy; on the south by the Mediterranean Sea, and on the east by the Archipelago.

An uninterrupted range of mountains runs down the middle of the greater peninsula, in a parallel line to its eastern and western coasts, varying in elevation from 7000 to 8000 feet in the northern and central part, to those in the south, which are about 700 or 800: among the former may be reckoned the loftiest ridge of

Pindus and Parnassus; and, among the latter, Parnes, Pentelicus and Hymettus, in Attica. From this central chain different ridges branch off towards the coast on either side; eastward the celebrated Olympus, near the northern part of the gulf of Salonica, rising to the height of 6000 feet, forms part of an interior chain, extending through the island of Negropont, consisting of Ossa and Pelion, Ota and Othrys, and mount Delphis the most remarkable of them all. The mountainous countries of Epirus, Ætolia, and Acarnania, constituted part of what is now called Albania. In the Morea, near the western coast, is the lofty Cyllenian range, while towards the south rises the Taygetus. These mountains enclose plains of considerable elevation, of which Thessaly, Bœotia, and Arcadia, still maintain their ancient appearance, and are watered by mountain streams and the numerous branches of the Peneus and Salympria, which, after intersecting the plain of Thessaly, unite, and flowing through the famous valley of Tempe, discharge themselves into the Gulf of Salonica; while the Alpheus fertilises the verdant plains of Arcadia, Elis, and Achaia. To these may be added a multitude of other streams of less importance, which would not have been noticed in any other country than Greece, where every rivulet has its verse, and as Spon observes, these smaller rivers make more noise, 'dans les livres que dans leurs lits.'

There is but one lake of any considerable extent, the Copaïs, now called Topoglias, which receives the waters of the Cephisa, after they have traversed the plains of Phocis, besides those of a number of other rivers. It is situated near the north-eastern coast of Bœotia, and its incessantly increasing waters would long since have inundated the country, and rendered it uninhabitable, had it not been for the gulf of Katabathron, which, at the foot of a chain of chalk hills, receives the overflowings, and this lake probably finds a passage under the hills; for the waters spring up abundantly on the opposite side, and form a river, which at a short distance discharges itself into the sea between plantations of cotton. The inhabitants call this river Larmi: it may be regarded as the outlet of the Cephisa, which, after crossing the lake, runs about a league under ground. It is uncertain whether the Katabathron be the work of nature alone, or whether art has completed what nature has begun; this subterraneous canal was obstructed in its course, under the reign of Alexander, by earthquakes and the crumbling of the ground; and there are still visible the extremely deep wells, which were then dug to facilitate the course of the waters. Another operation of this kind will perhaps soon become necessary, as the banks of the Copais, continually assailed by the winter torrents, present nothing but a series of unhealthy marshes. Surrounded by rocks and half-cultivated hills, behind which, on the western side, the mountains of Phocis are seen rising in different shades of coloring, the Copaïs presents one of the finest scenes in Bœotia; in summer the roses almost cover its banks; the river Hercyna, dashing from rock to rock, falls into this vast basin, foaming over the blocks of stone which arrest its progress. Precipitous rocks, covered with wood, rise on either side of the bay, into which the waters of the lake discharge themselves on issuing from their subterraneous abyss. Buzzards and other birds are seen constantly flitting over this liquid plain, while the vultures are ever hovering on the mountains which bound it to the west.

The coast of the peninsula, especially in the southern part, is considerably indented with gulfs and bays, several of which afford commodious and sheltered anchorage for vessels, and furnish great facilities for maritime commerce. The principal of these are the gulfs of Salonica, Talanta, Athens, and Napoli on the east; those of Aulona, Prevesa, Lepanto, and Arcadia on the west; and those of Coron and Kolokythia on the southern coast; that of Talanta is more properly a channel, separating the island of Negropont from the mainland, to which it makes so near an approach, that Chalcis, the principal town, almost touches it. Of course there are many capes or headlands, some of them projecting far into the sea; the most remarkable of these are capes Lingua, Leucadia or St. Maura, and Konella on the west; capes Gallo, Matapan, and Malœa to the south; and capes Sunium or Calona, Manteio, and Phalasia, on the east.

The climate of Greece, according to the latitude in which it is placed, and its exposure to the sea, which almost surrounds it, should be similar to that of Italy; it is, however, in many parts colder in winter, and warmer in summer. In the centre of the country the tops of the mountains are for three parts of the year covered with snow, which in some of their deeper recesses may be always discovered. Mount Parnassus was formerly thought to be impassable on account of its perennial snow, but Dr. Sibthorp relates that it was perfectly free when he crossed it in the month of July. Some plains of considerable elevation are said to be as cold as the west of England, particularly that of Ionnina, about 200 feet above the level of the sea, between the middle range of mountains and the western coast; in the Morea, further to the south, the elevated plains are still colder, and Tripolitza is said to be sometimes covered with snow to the depth of eighteen inches. At no great distance from Tripolitza, the capital, Dr. Holland found the temperature at six in the morning as low as 16° of Fahrenheit. He adds, 'the degree and continuance of cold were such as I scarcely recollect to have experienced in England, and this in the very centre of Arcadia; but this was in 1813, a winter remarkable for its severity in every part of Europe. In summer, however, the blooming vales of Arcadia present a continuance of scenery equal to any thing which has been described or imagined in poetic song. Luxuriance and beauty may be pronounced to be the general characteristics; flowering valleys, winding streams, and hills shrouded nearly to their summits with wood, are the objects which commonly awaken our admiration.' —Haygarth. In the lower regions of Attica the air is more moderate, and the climate more equable, the cold being less intense, the heat less oppressive, and the rain less abundant. In

Athens the temperature seldom rises above 80° or 90°, and it is very rarely so low as the freezing point; it is therefore generally healthy, while on the contrary, many parts of Livadia, which, in ancient times were the site of populous cities, are become infectious marshes, spreading death among those who are hardy enough to establish themselves in their neighbourhood.

The soil of Greece is generally good; that of Bœotia especially is very rich, producing wheat, Indian corn, barley, kidney-beans, rice, and sesamum, with a great quantity of cotton; while its lakes still supply Athens and other parts of the country with eels, waterfowls, and rushes for baskets, mats, and lamp-wicks. Not fewer than eight different sorts of wheat are cultivated with great success, and produce in good soils from ten to twelve for one, and in the best from fifteen to eighteen for one, and this mostly in unmanured ground; barley, millet, and tobacco are also general throughout Greece. In the plains of Thessaly are extensive groves of mulberry-trees, cultivated principally for the silk-worm, which is there an object of much attention; the trees are carefully cut down, watered, and hoed. The silk of Attica is remarkable for its whiteness; but that of the Morea, deriving its name probably from the mulberry, is the most celebrated; there is also abundance of excellent corn, wine, and figs, and the wheat yields thirty-fold, and two crops in a year. The cactus or Indian-fig forms an impenetrable hedge with its thorny coats round the plantations in many places; but most of the lands are open. Cotton is produced in most parts of the country, but in the greatest abundance in the plains of Triccala in Thessaly, where not less than 600,000 pounds of the wool are grown annually. The fig-tree is cultivated with much attention and success, and the olive forms the greatest part of the exports and riches of Attica, yet this oil, once so fine and so highly esteemed, is now only used for the manufacture of soap. Their knowledge of agriculture is not very far advanced, and the simple instruments they use bear every mark of a very ancient origin; in some parts, as in the isles of the Archipelago, they use the spade instead of the plough, the lands being divided into parcels too small to require the use of the latter instrument. Of the wines of this country, ten different sorts have been enumerated by Dr. Sibthorp, but none of them can be called fine except those made on a few of the islands of the Archipelago; the practice also which generally prevails of mixing with them turpentine, from the species of fir called pinus maritima, in order to prevent them from becoming acid, renders the flavor not very agreeable. This fir is one of the most useful trees in Greece, furnishing pitch and tar for all maritime and domestic purposes; of the resinous parts are made candles or torches, the cones are put into the wine casks, the wood serves for the carpenter, and the bark for tanning. Honey is produced in considerable quantities, and much valued by the Athenians, especially that of Hymettus, in Attica, which has been celebrated from time immemorial, and is still so much in esteem, that a present of 1000 pounds weight of it is annually sent to Constantinople. Articles of the first necessity are all manufactured in Greece; tanning, dyeing, cotton and silk weaving, and other mechanical arts, are carried on with tolerable skill in every family: and the Greeks have no need of importing any thing but what contributes to convenience or luxury; articles of this description they can easily procure by giving in exchange the superfluity of their produce, as grain, oil, wine, fruits, &c. This exchange sometimes affords a very lucrative commerce, but, in order to turn the balance decidedly in favor of the Greeks, agriculture must be carried to a higher state of perfection, so that the quantity of their productions may be increased, and the quality of their goods improved.

To produce these beneficial effects the laborer must be rescued from the iron hand of oppression, and brought under the dominion of just laws; but the despotism of the Turks has paralysed every thing in Greece. To live in abject wretchedness, to have no appearance of wealth or comfort in their dwellings, or any thing which may tempt the cupidity of these savage masters, is the only safeguard that the miserable Greeks possess. Owing to this cause, and the unwholesome state of the atmosphere in some places, arising from the numerous marshes near the coast, the population of the country is much diminished. The whole of Greece does not perhaps now contain more than 4,000,000 of inhabitants, allowing to the

Peninsula in the north .	2,000,000
The Morea and Negropont	1,000,000
The islands	1,000,000

The Greeks constitute three-fourths of this population; the rest are Turks, Mussulmans, Albanians, Jews, and the mixed descendants of Romans, Venetians, Neapolitans, and other Europeans, generally called Franks. The Turks are, however, quite ignorant of the state of the population; it is, therefore, not surprising that strangers should have but an imperfect knowledge of it. As of old, the people may be said to be divided into four classes, cultivators of the soil, craftsmen, soldiers, and priests. In the manners of the Greeks we may observe many defects and vices; but these are, for the most part, the natural effect of their long and hard bondage, and should make us detest the barbarous despotism which has so long oppressed a people gifted with every disposition necessary to render them great, happy, and worthy of their ancestors. They are indeed naturally lively, and this appears in the excessive joy which they manifest in their panégiris or church-festivals, in which they drink and sing and dance in honor of their patron saint, till they fall into a state of weariness and stupefaction. It is said, that a Greek before he enters again into his enslaved village, sometimes takes a week, a month, or a year to rejoice in; but this is not gaiety; it is frenzy; they appear in this like the unfortunate negroes, who pass the whole night in dancing, in order to forget the toils of the day. If the men are immoderate in their exhibitions of joy, the women are so in

their grief? The loss of her husband terminates for ever the happiness of the widow; she utters dreadful lamentations, tears her hair, disfigures her countenance, retires from society, neglects the care of her person, and takes no part in social avocations; she seldom marries again. In well regulated towns this excessive mourning has been rather tempered by the prevalent manners, but, in the country parts and the islands, it is still inordinate. At their funerals, mourners are hired for the purpose, and the disgusting spectacle is exhibited of a factitious despair, mingled with the most extravagant panegyrics on the deceased; in many places they expose the dead in the churches, where they are visited by the relations and friends, who come to give them the last kiss. A woman is considered as of little value in society, when her husband is dead: in the higher ranks, as among the ancients, the Greek females are sequestered and shut up in their seraglios, from which they never go out without their veils, and that only to visit their female relations, or to frequent the churches. Embroidery, music, and story-telling are their chief occupations in their retirement, and their minds thus left without culture, would become torpid were it not for their natural vivacity, which discovers itself in the brightness of their eyes, in the flexibility of their agreeable countenances, and in the agility of all their limbs; but these women, who in the most simple dress always appear even handsome, disfigure themselves by the heavy costume in which they are muffled up, and the thick paint with which they cover their faces. Frequent bathing, and that languor inseparable from idleness, impair in early life those charms, which begin to disclose themselves at a very tender age, and all the marks of a premature old age appear before they have reached what is commonly considered the prime of life; among the lower classes, the fatigues of labor generally produce the same effect. With an excessive love for dress, and great fondness of perfumery, the Greek women manifest great negligence in regard to the cleanliness of their apparel, and their dwellings are destitute of neatness, though it would be most easy to keep them in order; since all their moveables consist in a few sophas, some presses or chests to contain their clothes, the matrasses which they spread in the evening to sleep on, some stools about two feet high which serve them for tables and chairs, and the brazier near which the women in winter spend the whole day, and which is about the same height: some images complete the decoration of their rooms. In the cities and the islands, where more intercourse with the European nations prevails, there is less uniformity and insipidity in the life of the females; they are not excluded from society; gay and affable, they often charm the traveller by the most gracious and easy hospitality. 'What stranger,' says a popular French advocate of the Greeks, 'can resist the invitations and offers of hospitality which are frequently addressed to him in a sweet and harmonious language by groups of lively and black-eyed females seated before their houses, and occupied in the labors of embroidery and spinning, under the fine climate of the Archipelago?' Education furnishes them with scarcely any means of dissipating their weariness; their husbands either leave them alone while they go to navigate the ocean, or treat them with a lordliness equal to that of the Turks. Among the superstitions to which they are much devoted may be mentioned their using of various charms, their consulting with sorceresses, and their reliance on dreams, which interest them exceedingly, and by which the young females endeavour to discover what sort of a husband they are likely to have, and whether they are destined to be happy in their future life. Their marriages are celebrated with rejoicings, in which whole villages take a part. The proposals are made in some of the islands by proxenetes or match-makers; at church the newly married couple are adorned with crowns; and, on entering the bridegroom's house, the bride is carried over the threshold, as to touch it would be counted a bad omen. Almonds, walnuts, and other fruits are distributed among the people; the repast is commonly very abundant, and they drink moderately as is customary in Greece, where drunkenness is seldom met with, and their manner of living is generally very simple.

In vain in this country do Helicon and Parnassus still rear their summits to the clouds, the genius of the fine arts no longer resides there: how indeed could they develop themselves under a government which makes every appearance of riches a signal for fresh exactions? Neither architecture, nor painting, nor sculpture, is to be found in any perfection; the churches even are small and mean, and those which are in any respect remarkable in their construction take their date from the times of the latter empire, or of the Italians, or have been composed of the fragments of antiquity; besides these there are no public edifices, except the monasteries, built without taste, and often without any symmetry. This country, once the richest in the productions of the fine arts, is now the poorest in the civilised world; and, to equal other nations, it will be necessary for the Greeks to study the very first principles, since these have fallen into oblivion. Music is among them less an art than a means of amusement and diversion; in their churches the clergy content themselves with miserable psalmody, which they never dream of improving; and, in their social meetings, a bad instrument, some favorite air, and a poor player, are sufficient to excite their gaiety. Their songs sometimes produce emotions of the most moving kind, but this is hardly to be attributed to their music; indeed, buried in slavery and poverty, how can the art of harmony inspire any people?

The language of the ancient Greeks has undergone many alterations in the course of time; and these, as may be observed, commenced with the decline of the eastern empire. The irruption of the barbarians hastened the corruption of the language, as well as the fall of the empire; and ages have passed in which this nation had no literature but that of its ancestors. About the twelfth century some taste for learning arose;

the crusades then commenced, which brought the East into relation with the West, the Greeks with the Latins and Saracens; and though there was a striking distinction between the supple and artful character of the Greeks, and the barbarous rudeness of the Latins, new ideas were inspired into the mind of the nation, and new expressions were introduced into its language. The Italians particularly had great influence over the Romaic, or modern Greek, which was then formed; poets and prose writers availed themselves of this new language; which, though as remote from the ancient Greek as the Italian is from the tongue of ancient Rome, soon became the national idiom. Had not their liturgy, from the earliest times of Christianity, maintained the use of the ancient harmonious language of their ancestors, the Greeks probably would have been much farther distant from its purity; and to this same preventive cause may be attributed the uniformity which prevails in the modern language in all the different districts, how remote soever they may be from the centre of Greece. In some of the islands also, which are very little addicted to trade, more of the words and turns of expression of the ancient Greek are preserved than in the rest of the country. The Albanians, who have been settled in Greece only six centuries, have adopted the language of the Greeks, though they differ from them in other respects, and treat them with great contempt. Independently of words and expressions derived from the European tongues, the ancient Greek grammar has undergone various alterations; the accents, which the nice ear of an Athenian distinguished with so much care, have been confounded; the aspirations, though still marked, are no longer pronounced; several vowels and diphthongs, that the ancients distinguished, have now the same sound given to them, ει, οι, η et υ, being pronounced by the Greeks as ē; and this, they pretend, is the true pronunciation. With the words of the ancient language the moderns have taken great liberties, lengthening some, shortening others, interpolating or retrenching the vowels or consonants in the middle of words, changing one letter for another; in fine, confounding their significations, and using the ancient words in new senses. In the grammar, the dual number, peculiar to the ancient Greek, and the oblique cases, are lost; the auxiliaries *to have* and *to will*, employed in modern languages to indicate the past and the future, as well as the use of the personal pronouns in the verbs, are all derived from European sources. It is remarkable, that the mariners and fishermen of the nation have retained more of the ancient words than others; the names which they give to plants and fishes bear a strong resemblance to those by which Dioscorides, and other naturalists, called them. On the other hand, the most corrupt dialect is used in Attica, where once the most pure and chastened style prevailed. The orthography varies much, and, indeed, has no fixed rules.

We cannot expect any brilliant progress in literature from a people oppressed for so many centuries, who possess no capital, or any great establishments for education; who, until this century, had not even a single printing press, and received from Venice and Trieste the only books generally saleable, that is, the formularies of devotion. The Athenians have lost all traces of those dramatic exhibitions of which their ancestors were so fond. Only three poems have been produced among them before the eighteenth century; but since that time their poets have multiplied, and their productions have become more numerous and varied. Songs, in which all nations delight, are become a favorite amusement with the Greeks. At first they had two kinds of them, viz. *erotic*, or love songs, and the *clephtica tragoudia*, that is, songs celebrating the great exploits of some klephtes, a name simply signifying a robber, but by no means dishonorable in some parts of Greece, where the most respectable people make no scruple of taking to the highway, and subsisting on the booty they have acquired, especially if they have regularly made their offering at the shrine of some saint or madonna. We shall quote two of these klephtic songs in the original, as a specimen of the Romaic generally spoken, with subjoined translations, which will give some idea of the tone that breathes through many of these mountain strains.

Ο ΤΑΦΟΣ ΤΟΥ ΔΗΜΟΥ.

Ο ἥλιος ἐβασίλευε, κι' ὁ Δῆμος διατάζει·
'Σύρτε, παιδιά μου, 'στὸ νερὸν, ψωμὶ νὰ φάτ' ἀπόψε.
Καὶ σὺ Λαμπσάκη μ' ἀνεψιὲ, κάθου ἐδῶ κοντά μου·
Νὰ! τ' ἄρματά μου φόρεσε, νὰ ᾖσαι καπετάνος·
Καὶ σεῖς, παιδιά μου, πάρετε τὸ ἔρημον σπαθί μου,
Πράσινα κόψετε κλαδιὰ, στρῶστέ μου νὰ καθήσω,
Καὶ φέρτε τὸν πνευματικὸν νὰ μ' ἐξομολογήσῃ·
Νὰ τὸν εἰπῶ τὰ κρίματα ὅσα ἔχω καμωμένα·
Τριάντα χρόνι' ἁρματωλὸς, κ' εἴκοσι ἔχω κλέφτης·
Καὶ τώρα μ' ἦρθε θάνατος, καὶ θέλω ν' ἀπαιθάνω.
Κάμετε τὸ κιβοῦρί μου πλατὺ, ψηλὸν νὰ γένῃ,
Νὰ στέκ' ὀρθὸς νὰ πολεμῶ, καὶ δίπλα νὰ γεμίζω.
Κι' ἀπὸ τὸ μέρος τὸ δεξὶ ἀφῆστε παραθύρι,
Τὰ χελιδόνια νά 'ρχωνται, τὴν ἄνοιξιν νὰ φέρουν,
Καὶ τ' ἀηδόνια τὸν καλὸν Μάην νὰ μὲ μαθαίνουν.'

THE TOMB OF THE KLEPHTES.

Darkness drew near, and day was fading fast,
Like death and life, when Demos spoke his last:—
'Leave me awhile, my children!—hence, and bring
Our draught for evening from the crystal spring;
My brother's son, Lampsakis! come and wear
These arms—my arms—henceforth be chieftain here—
My comrades, take my now forsaken sword—
Cut me green boughs, and let its blade afford
Once more a couch to rest its weary lord!
Call me a priest to whom I may confess
All my past errors—would the list were less—
A Klephtes long! an Armatolos longer,
Terror of Turks—but *now* the foe is stronger—
'Tis Death! prepare my tomb—but broad and high!
When o'er it sounds the Moslem's battle-cry,
Let me have space to raise my mouldering corse,
Appall with death, yet strike with living force!
And leave one crevice—where the rustling wing
Of swallows and of nightingales that sing
The lovely May, may tell me when 'tis Spring!'

ΤΟΥ ΣΤΕΡΓΙΟΥ.

Κ' ἂν τὰ δερβένια τούρκεψαν, τὰ πῦραν 'Αρβανίτες,
'Ο Στέργιος εἶναι ζωντανὸς. πασάδες δὲν ψνφάει.
'Οσον χιονίζουν τὰ βουνὰ, Τούρκους μὴ προσκυνοῦμεν.
Πᾶμεν νὰ λιμεριάζωμεν, ὅπου φωλεάζουν λύκοι
Σταῖς χώραις σκλάβοι κατοικοῦν τοὺς κάμπους μὲ τοὺς Τούρκους,
Χώραις λαγκάδια κ' ἐρημιαῖς ἔχουν τὰ παλληκάρια.
Παρὰ μὲ Τούρκους, μὲ θηριὰ καλήτερα νὰ ζοῦμεν.

STERGHIOS.

Tho' the Turks and Albanians our passes may hold,
Our Sterghios will scorn them, though many and bold;
And as long as the snows on the mountains shall be,
Though we live with the wolves, we will live to be free,
The towns, and the plains, are the home of the slave
Where they herd with their Mussulman tyrants—the brave
Have their cities in rocks, cliffs, and solitudes, so
We will dwell among beasts—but with infidels—No!

A little while before the insurrection of the Greeks a printing press was established in the island of Scio; by this means learning began to spread rapidly; the classic works of ancient Greece were republished; libraries, colleges, and schools, were established among themselves, and the young Greeks were encouraged to frequent the foreign universities. Of all the losses suffered by this interesting country, that of her universities at Buchorest, Aivali, Scio, Yanina, and Athens, will be long felt; the very seeds of their restoration perished with the 500 Greek students, 'the sacred band,' who fell at the fatal battle of Drageschan. The Anglo-Ionian university of Corfu is now the only sanctuary for Greek literature; and this, perhaps, is destined ere long to shed the beams of learning and virtue over the regions of the Levant.

The character of the Grecian people, as of all other civilised nations, has been strongly influenced by the principles and practices of its religion. In ancient times, notwithstanding the lights that philosophy afforded, they were completely under the dominion of their priests; their treasures were lavished at their altars, their lives were often sacrificed in their temples, and the fables of their mythology, and the various festivals of their worship, some of them horrid for their cruelty and others abominable for their licentiousness, were the themes of their finest works of imagination. However free they were in the conduct of their civil affairs, they were really slaves in their religious opinions. When at length the prevalence of Christianity wrought the downfall of this ancient system of superstition and imposture, the national spirit transferred to the new worship the ardent imagination, the vivacity, and the puerile superstition, that had been derived from the ancients. Miserable controversies, and scholastic subtilties, distracted the minds of the people; a breach took place with the church of Rome; pagan doctrines relative to magic, the curse pronounced by the priests, and the efficacy of some religious services, were propagated almost without alteration; but, incredible as it may seem, the doctrine of purgatory, so profitable to the Latins, and which has conferred such immense influence and riches on their clergy, never gained access among the Greeks. The usurpation of temporal power by the clergy, which has constituted the disgrace of the Latin church, is unknown to them; the Greeks are astonished how a bishop of Rome, who, say they, is no more than a bishop of Alexandria, of Antioch, or of Nice, should dare to usurp the supremacy over the whole Christian world, and domineer over the clergy and laity. There has always been something of the republican forms of antiquity preserved in the Greek church; they consider the priestly power as residing chiefly in the patriarchs, metropolitans, archbishops, and bishops; and say, that the first seven councils have settled every thing that relates to doctrine, the decisions of which nothing should, or can, affect. As to discipline, they consider it as the business of the synods, and that the assistance of a pope is altogether unnecessary. Four patriarchs, elected by the synods, and residing at Constantinople, Antioch, Jerusalem, and Alexandria, have nearly the same power, that of Constantinople being merely regarded as the chief, and exercising some temporal authority in a council of archimandrites, archdeacons, and other priests and monks, at which he presides; every bishop among the Greeks decides matters in dispute, according to the codes of Justinian and Theodosius, and the laws of Basil of Macedonia. But this temporal authority is rather the result of the civil, than the religious state of the people, who, having no other superior authorities than their patriarchs and bishops, would rather refer to these national judges, than to the tribunals of their Turkish oppressors. The manners of the superior Greek clergy are very simple: as they are mostly taken from the monastic order, their lives partake very much of the uniformity of the cloister; while monachism itself does not, as in the Romish church, exhibit any thing of that pomp, predominant influence, and cruel authority, which have been displayed by the Jesuits, the Dominicans, and Cistertians, of the West. The Greek monks are all of the order of St. Basil, preserving much of the simplicity of their primitive institution; it is in solitary places, in the midst of rocks and deserts, that the caloyers take up their abode. It must not, however, be concealed, that the inhabitants of the Greek cloisters are generally very ignorant; being condemned to a contemplative mode of life, they seem as if they imagined they had nothing more to do with their reason; and some of them, not content with the sacrifice of thought, submit to the mortifications, and austere life of anchorites, and become almost walking spectres. Ambitious, notwithstanding this, of ecclesiastical honors, their conduct is often greedy and oppressive; the patriarch, obliged to pay a tax to the Turks for his place, exacts upon the metropolitans, these squeeze the bishops, and the bishops lay the monks and parishes under con-

tribution; they frequently sell the furniture of those who do not pay these exactions, and contract debts at the cost of the people. The lower clergy, that is to say the papas, having no prospect of advancement, betake themselves to occupations of the meanest kind, in order to support their families; for, happily for the population of the country, they are not forbidden to marry. They are frequently husbandmen or farmers, who, having learned a few of the formularies and ceremonies of the church, have purchased the priestly office of some accommodating bishop, and, becoming all at once papas, make money of every thing; they sell absolutions, sacraments, exorcisms, relics, &c. They promote all kinds of superstition; they have covered all Greece with their little chapels, each of which has its officiating priest; ignorant and fanatical, and miserably paid, they are often the disgrace of the religion they profess, and pursue trades by no means honorable, in order to obtain their subsistence. 'All Greece,' says the Count de Choiseul-Gouffier, 'is filled with these monks, scarcely any of whom can read; but they know how far the influence of religious fear extends over superstitious minds. Every pirate has with him a caloyer, or papas, to absolve him from a crime the very moment he has committed it; after having massacred the people in the buildings they take by surprise, after having plundered and razed them to their foundations, they immediately prostrate themselves at the foot of their minister, when the repeating of a few words reconciles them to the Deity, as they suppose, calms their consciences, and encourages them to the commission of new crimes. Numberless ceremonies and superstitions constitute the whole of the religion of the papas and the laity; and there is not one superstitious opinion or practice of the ancient Greeks which is not prevalent among their descendants in some form or other; they have even augmented the number. They acknowledge the influence of evil genii every where; they have protecting saints against every species of misfortune and accident; they have peopled nature with invisible spirits; the dead have no rest among them, they appear again in the form of vampires or broucalakas; the whole village is thrown into confusion, and they make use of every charm to quiet the restlessness of these phantoms. In no place has sorcery so completely enthroned itself as in Greece; not only do they believe in it, but they see its effects every where. Dreams are ever furnishing fresh food for superstition; they attribute periodical fevers, and other diseases, to malignant influences, and to envy; they write the name of the malady on a triangular paper, and stick it on the entrance of the sick man's chamber in order to obtain his cure; they fix the nail of a coffin on the doors of their houses to drive away the apparitions; they tremble at the screeching of an owl, or the shaking of a leaf; the osprey spreads alarm in every direction, when its cries interrupt the silence of the night; a whole caravan is stopped, if a hare cross its path, until some one comes up, who has not seen it, and breaks the charm; to hear the braying of an ass on a fast day, to meet a papas, or monk, at the rising of the sun, are portentous omens; lightning is dreaded by the husbandmen, and eclipses are considered as the precursors of calamities; in fine, the number five is held as one of the worst of auguries, so that they believe themselves bewitched if they utter it, or if any one extend to them their hand with the five fingers.

Should another Luther make his appearance in the Eastern church, he would have a multitude of these things to reform, and he would render a great service to the people by suppressing the useless fasts, which are imposed on them during a great part of the year. The fast on the Epiphany, at the great ceremony of the blessing of the waters, every Wednesday and Friday in honor of the Passion, at the Ascension, and at Christmas; but it is in Lent especially, that every body, even the sick and women with child, observe a rigorous fast: to see the miserable food, and even polypuses and other marine animals, some of them half putrified, on which they then support themselves, we have the greatest difficulty to conceive how these intrepid fasters can sustain life. At the approach of Easter they make themselves amends for this severe abstinence; on Palm Sunday they decorate the churches with the boughs of odoriferous shrubs; they purchase on the following days absolution from their sins; on Holy Thursday they partake of the Communion according to the rites of the primitive church, observing this ceremony as a banquet of peace and brotherly love; Ash Wednesday is a day of entire fasting, and they continue their devotions till late at night; but on Easter eve all is bustle and preparation for the next day's festival; they clean the house, throw out of the windows the old earthen vessels, which have been used during Lent; the best apparel is taken out of the family chest; the paschal lamb is purchased for the solemn repast, and they resume the harp and the tambourine, which had been laid aside during the fast. The dawn of the Sabbath is hailed by vollies of musketry and cries of joy; they make presents to their friends of painted eggs and cakes, the paschal lamb is eaten by the whole family, and copious libations of wine spread everywhere a noisy pleasure, which is kept up during eight days, and often degenerates into extreme licentiousness. In many respects these orgies resemble the Saturnalia of the ancient Greeks.

Baptism among the Greeks is administered by immersion, and they accuse the Latins of having altered this institution by practising sprinkling. Their communion is a distribution of wheaten bread and wine; to which on particular festivals a lamb is added; this simple repast seems very much to resemble the agapæ of the first Christians. In their churches they have only pictures painted on wood, miserably executed; in the country of Phidias and Praxiteles they have proscribed without pity statues and sacred sculpture, for fear of falling into idolatry, but they have no fear of this kind from exposing to view the wretched images painted by the monks. These paintings pass among them as miraculous; and most of the Greek monasteries possess one of them, which the cre-

dulity of the laity renders very profitable to the clergy; pilgrims repair to those that are most renowned, especially on the festivals, which are celebrated near fountains held sacred in the days of republican Greece.

II. Under the name of Great Greece or Livadia are comprehended the provinces situated between the sea, on the east, south, and west, and Macedonia and Albania on the north; that is to say Acarnania, Ætolia, Phocsi, Bœotia, Thessaly, and Attica. There are few remains of the multitude of cities which once filled this country, and its population is perhaps not more than one-tenth of what it was in ancient times. The mountains on the side of Albania afford a covert for some warlike tribes, whose chief occupation is robbing, and who attack one another, when they are not engaged with the neighbouring nations; the presence of the Turks, too, has been sufficient to depopulate these once flourishing provinces. The soil still continues fertile, and the traveller is charmed with the luxuriant pasturage of the plains, the thick forests of the mountains, the fruitful fields and plantations of the valleys, the delightful orchards round the towns, the fisheries of the coast, and the cultivation of the silkworm, the vine, and the olive, all flourishing under a climate remarkable for its mildness.

The richest, most prosperous, and best peopled, province of ancient Greece is Attica; but it has lost all the advantages, which human genius and industry had conferred upon it; nothing now remains but a serene sky, a fine climate, and a soil suited to every species of culture; yet badly tilled, it exhibits in some places a naked sterility, producing only degenerated vegetables. The population had been in 1820 reduced to 25,000 souls, including Greeks, Turks, and Albanians; among the two latter foreign nations, the Greeks themselves seem like foreigners; bowed down under the degrading yoke of these barbarians, the Greek of Attica has none of the airy vivacity of the ancient Athenian, who could bear neither slavery nor liberty, and in whom the love of glory and a taste for the fine arts incessantly gave birth to the most lively emotions. Deprived of their cities, their industry, and their commerce, the inhabitants have been reduced to a rustic and pastoral life; in winter these wandering shepherds descend from the mountains of Thessaly, to find under a softer climate pasturage for their large flocks of goats and sheep. The former of these animals are more numerous in these provinces than the latter, and almost equally serviceable; of their hair are manufactured sacks and large carpets; their milk, either by itself, or mixed with that of the cow, makes good cheese, and their skins, converted into bottles, serve for the transportation of the wine, oil, and honey, of the province; and, being afterwards tanned, are made into shoes for the people. Five shepherds are counted sufficient for a flock of 1000, and, when the vintage is over, they bring their flocks into the vineyards, to feed on the vine leaves. The people of Attica still excel in the art of dyeing wool and cotton; they dye blue with indigo, yellow with Avignon berries, and red with the chrysoxylon or wood of the rhus-cotinus, which, growing on the mountains in the neighbourhood of Marathon and Pendeli, is gathered by the Albanians, who sell it to the dyers. The country yields great quantities of good madder, and a little cochineal is gathered on mount Cacha, but not used in dyeing. The wine, anciently much esteemed, is very bitter, weak, and saturated with resin; the honey of mount Hymettus, once so celebrated, Clarke assures us, has now the effect of a medicine, so that it is dangerous to take much of it. The poor Caloyers, who inhabit this barren mountain, are obliged to deliver the honey which they gather to the bishop of Athens, to whom the revenues of their convent belong. Wood is in general very scarce in Attica, and in some places they have no other fuel than brambles; there are very few mulberry trees, and the quantity of silk produced is very small; it is, however, fine and entirely white. Every thing seems to have degenerated on this classical soil, not through the fault of nature, but of man. The oil, of which they make 20,000 large measures a-year, furnishes occupation during the winter to a great number of workmen; many of whom themselves possess a house with a little vineyard, some olive plants, and a few hives of bees, on which they subsist, while taking care of the olive plantations of the oikokuroi, or richer proprietors. The latter also let out little farms, with a cottage and some arable land, to the poor, furnishing them with grain for seed and cattle, and receiving at the harvest two-thirds of the produce, after a tenth has been reserved for the voivode or Turkish governor. In the plain of Athens a great quantity of barley is cultivated; it is sown in October or November: in the month of May they drive horses and asses into the fields, tying them to posts, that they may eat the barley; and removing the posts when they have sufficiently fed upon and manured the land around them. A plough of the simplest construction is then used in preparing the ground for the sowing of cotton, which immediately commences. Instead of a harrow, they employ a process, which is also evidently derived from the early times of Greece; a laborer standing upright on a plank laid upon the ground, which is drawn by oxen over the furrows in order to close them. The cotton harvest commences in the month of September, and when it is finished the barley sowing commences; so that the earth never rests, but, after a long series of ages, still yields its fruits without relaxation or abatement. When they thresh their corn, they bring it out into a court, the floor of which is either paved or made of closely beaten or smooth earth; in the neighbourhood of Athens the ground is sufficiently hard without beating; in the midst of this area they fix a post, to which they fasten with a cord one or more horses, making them turn round in a circle; the cord winding round the post, is continually shortening and bringing the horses to the centre; they then make them turn the contrary way, till the cord is completely unrolled; the workmen in the mean time are constantly throwing in the corn under the animals' feet. When the grain is winnowed, it is laid up in

heaps, and before the year 1821 the Turkish aga used to come and put his seal upon them, and it was unlawful to remove the least portion, until the tithe had been taken. Besides this tithe there was a tax upon vineyards, another upon wine, another on exports, and lastly a karatch or capitation tax: when the harvest is finished in Attica the laborers go with their mares into Bœotia, where the season is later on account of the mountains and lakes.

In Attica the native Greeks have by degrees given place to the Albanians, or intermingled with the foreigners who had possession of the country in the middle ages, such as the Arragonese, the French, the Venetians, and the Genoese; it would therefore be very difficult to find any trace of the ancient Athenians or Eleusinians. The language and manners of the nation, however, still predominate, and have resisted even the barbarous oppression of the Turks.

The Piræus, formerly the celebrated port of Athens, exhibits few and very imperfect remains of the fine monuments of art with which it was once adorned: it now consists only of a convent, a custom-house, a few warehouses, and four anchoring places. The commerce of Attica, now furnishes only some fruits, oils, and cotton, for exportation. A plain and a few hills separate it from Athens, the citadel of which first strikes the eye of the traveller on his approach: on the road there are some fragments of tombs; and traces of the wall, which joined the city to the port, are still visible. In the neighbourhood of the port extends a bank of rocks scarcely elevated above the soil, and on putting aside the bushes there is to be seen a line of pits cut in the rocks, and covered with flat stones; this was the ancient necropolis or burying-place; these graves are filled with fine mould, at the bottom of which lie the remains of the Athenians or Piræans of ancient times. Burnt bones of black sheep sacrificed to the dead are also found, as well as pateræ and other things connected with the profession of the deceased: one plate of bronze bears the name of a judge, in another tomb there is a mask of baked earth, in another the figure of a philosopher sitting, and in others painted vases, &c.

Athens is irregularly intersected and surrounded by a rampart rudely elevated, and its present gates do not answer to the situations of the ancient ones; that of the Lions is the most imposing in its appearance. What remains of the ancient monuments is rather to be sought for without the city, the country parts being less subject to change, and in the city the ruins of antiquity serving mostly for the construction of new buildings. Formerly Athens extended all round the Acropolis, which is now isolated and on the outside of the city, which now does not occupy, perhaps, more than a fourth part of its former site. The bazaar or market place occupies a large space of ground, formerly perhaps the Ceramicus of the ancients; and a mosque, thought to be founded on the ruins of the Pantheon, stands in the midst of the square; another is supposed to be erected on the foundations of the temple of the Uranian Venus; and in front of the Turkish cadi's palace, near the same place, the prison of Athens once stood. In the same neighbourhood are to be found some remains of the portico of the stoics, and the dervises or Turkish monks not long since occupied the tower of the winds, which stands at the end of one of the streets: it is of an octagonal form, and built of marble, and received its name from the circumstance of Andronicus Cyrrhestes, its builder, having represented on the eight sides the figures of the principal winds; a brazen triton, turning on a pivot, indicated on the top of the building the prevailing wind; every front also had a sundial upon it. Demosthenes's Lantern, an ancient edifice, also of white marble, has become by a strange vicissitude the abode of the capuchins; not far from this is another ancient monument, called the Lantern of Diogenes, well known by the imitations of it constructed in some western countries, especially in the park of St. Cloud. The modern edifices and establishments are small and mean in appearance, and, if we except the residences of the foreign consuls, are easily overtopped by the palm trees and olives, and by the minarets of the mosques; the hospital exhibits nothing but poverty, and, if the visits of travellers in this age had not induced some naturalised foreigners to keep something like inns, the curious visitor would not have been able to find a lodging in the city of Pericles.

It would be worth while to take a journey to Athens, if it were only to see the Acropolis. This is the most ancient part of the city, and was at once a fort and a sanctuary, whence they held dominion over the bodies and souls of the inhabitants. A sacred olive, a salt spring, and an old idol, believed to be that of Minerva, gave rise in the time of Pericles to the construction of this fine monument of antiquity. Cecrops and Erechteus had their tombs in it. After the burning of the old temple of Minerva and the sacred olive by the Persians, in the seventy-fifth olympiad, Pericles built the magnificent Propylæum and the majestic temple of Parthenon, the ruins of which are still the models for artists; and this is not wonderful, since Phidias adorned it with his inimitable sculpture. Only the walls, however, the columns, and the caryatides, remain. This fine edifice, it appears, was not quite perfect in symmetry, which may have arisen from the necessity of occupying the site of the old temple, which was accounted sacred. The interior received scarcely any light from without, but was illuminated by a vast golden chandelier, the masterpiece of Callimachus, which was supplied with oil only once a year, the wick being made of asbestos, and consequently indestructible; this mysterious light shed its flickering beams over the old idol of Minerva, which had its face turned towards the east; and a figure of Mercury, surrounded with myrtle branches, and the sacred serpent, the guardian of the temple, came in for a share of the public veneration. Some traces of the Cella are still discovered in three saloons of different sizes; the largest, towards the east, dedicated to Erechteus, was adorned on the outside with a portico, supported by six

columns of the Ionic order. The smallest formed a little temple, borne by six caryatides, and erected on the site of the sacred olive tree and salt spring, and the other was the temple of Minerva. An ancient inscription proves that the Parthenon was not built till the fourth year of the ninety-second olympiad. The columns, on which the fronts of this edifice rest, are seen from afar; they are of the finest proportion, and executed with that perfection which the Greeks bestowed on their great monuments. The six caryatides represent Athenian girls assisting at the festivals of Minerva; above the tunic they have a kind of mantle, and a third part of their garment is thrown over their backs; part of their hair falls in ringlets over their shoulders and breasts. One of them has disappeared, and another, being carried off by lord Elgin, has been replaced by a pillar of rude masonry. The finest remains of the Parthenon were those admirable bas reliefs which adorned the pediment and metopes, and which also lord Elgin brought into this country, where they are exhibited in the British Museum. When Spon and Wheeler visited Athens, the Parthenon was used as a Greek church, and was still in such good preservation, that its primitive order could be tolerably well ascertained. A portico, elevated upon steps and supported by pillars without bases, completed the tour of the edifice; a sculptured pediment decorated the two fronts; under the portico was a frieze, also sculptured; in fine, the metopes or catouches of the front presented to view those beautiful sculptures which are now in England, with the remains of the frieze. The figures of the front and of the frieze have been conjectured by some to represent the contest between Minerva and Neptune; and by others Minerva, newly born, at the council of the Gods; but they are so mutilated that it is not easy to decide: they are nineteen in number. On the northern angle is represented the god of a river, supposed to be the Cephisus, situated on the north of the city; near him are a king and a woman, apparently about to embrace one another; then follows a figure, probably representing Irene, the goddess of peace, on whom Plutus is leaning, and leading on Proserpine, who is standing with Ceres in a chariot, the horses of which are inimitably sculptured; they seem to be teaching Minerva and Erechteus to guide the chariot. Jupiter is supposed to be standing near Minerva, with other figures representing the other divinities. On the southern extremity of the pediment is another river god, supposed to be the Ilyssus, to the south of Athens. Some of these figures are naked and others clothed, and in the former the more art has been employed, the less it appears; we could almost suppose they were alive, the figure of Ilyssus seems as if it moved and were rising up. The frieze on the peristyle probably represents the processions at the Panathenæan festivals; at the east, under the portico, are twelve figures, representing the principal divinities, towards whom the procession appears to be moving; this is followed by sacrifices, heroes, persons carrying baskets of fruits, choirs of citizens, chariots and troops of cavaliers; while on the metopes on the outside of the peristyle are seen, in demi relievo, figures of men breaking horses, and contending with centaurs. The other monuments of the Acropolis are less important, and the ruins less grand than those of the temple of Minerva. It is founded on a limestone rock, and was once the key of Athens; it was one of the last places quitted by the Turks in 1822, and for the first time since its ancient days belongs to the Greeks, and protects, instead of menacing, the inhabitants of the city. At the foot of it is a grotto, supposed to be that of Pan and Apollo, and a circular excavation in the rock indicates the site of the theatre of Bacchus; a naked and smooth platform of rock points out the famous Pnyx, where the turbulent populace of Athens assembled, to hear their orators discuss the public interests of their country, and sometimes to banish those who had rendered it the greatest services. A small excavation was the site, perhaps, of the tribune from which they harangued; not far from this are some anciently hollowed caves, supposed to be the prisons of the formidable Areopagus, but its situation is very doubtful. To the west of the city there are some fine pillars of marble, which once supported the temple of Theseus, built on the same plan as the Parthenon, and as late as the seventeenth century there remained some of the frieze of the portico, representing in basso relievo the battles of the Centaurs and the Lapithæ. It stood on an elevated situation, and was made into a little church by the modern Greeks; as the Turks have formed a little mosque under the ancient portico of Adrian, where it still exists, and where not long since was to be seen a solitary dervise perched between the majestic columns. On another hill, anciently that of the museum, stands the little monument raised to the consul Antiochus Philopappus. The bed of the Ilyssus, at the foot of this hill, is dry during the greater part of the year; its waters used to be conveyed to Athens by a subterraneous canal; in this bed rises the fountain of Callirhoë. The academy and other celebrated places have so completely disappeared, that it is very difficult to assign their situations.

Some European travellers have not given a favorable representation of the Greek population at Athens; it has been long a proverb, 'May heaven preserve us from the Jews of Salonica, the Turks of Negropont, and the Greeks of Athens!' Mixed with the Turks and the Schypetars, this aboriginal race must have lost all feeling of their national dignity, and the more so as they settled down into misery and ignorance. It is hoped that the exertions of foreigners, and the events of the present struggle, will have a tendency to spread information and raise the spirit of the people, and thus lead the Greeks to rally round the manes of their ancestors.

The climate of Athens is generally fine, and the air pure, but the excessive heats sometimes produce epidemic fevers; at the end of the last century the plague carried off more than one-third of the population. Ophthalmies are common, but these are rather the effects of their intercourse with Egypt, than of any local circumstances. In spite of the exactions of the Turks,

the oil trade of Athens is very considerable; it has also some manufactories of soap and morocco leather. In the families they fabricate very fine tissues, of cotton and silk, with broad stripes which are much worn by the rich instead of body linen.

The archbishopric of this city is one of the most ancient sees in Christendom, Dionysius the Areopagite having once filled it, and they still pretend to show his dwelling. Under the Turks the archbishop used to hold every Monday a kind of council with the Christian magistrates of the city, to receive complaints and adjust differences; the heads of families also were accustomed to choose every year four archons to watch over the public welfare, and these magistrates sat every day to hear causes, and to prevent them from being carried before the cadi. It is true, that Turkish despotism very much paralysed the influence of this institution, yet the Athenian archons did all in their power to conceal any fault from the knowledge of the voivode, and if he should get information of it, they endeavoured to obtain permission to inflict punishment themselves, to moderate the fines, and, if possible, hinder the matter from becoming public. There were also attorneys to defend the national, before the Turkish authorities, and each district of the city had its epitropos, a magistrate chosen annually by the citizens, for the assessment of taxes, contributions, and exactions.

From mount Anchesmus, and mount Hymettus, situated at a short distance from the city, a most delightful prospect is afforded of the country of Attica. The way to Hymettus lies across the Ilyssus, and over a plain covered with myrtles; among the rocks at the foot of the mountain is situated the poor convent of Siriani. The miserable caloyers boast of being possessed of a miraculous fountain, an infallible preventive of barrenness and all manner of diseases, at which, as they say, the Holy Spirit came to drink, on the day of Pentecost, in the form of a dove. The silver mines of Laurium, below Hymettus, were exhausted by the ancients, and, to a considerable distance west of Thorica, are perceived empty shafts and masses of scoria. Though the mines were worked in the centre of the range of hills, the smelting seems to have taken place on the coast, probably for the sake of procuring fuel the more easily, which would soon fail in the populous districts of the interior of Attica. The quarries of marble are equally discernible, which the Athenians worked on mount Pentelicus; a monastery situated on this mountain still bears the name of Pendeli. This is one of the best situated, and most richly endowed monasteries in Greece; seated on the declivity of the mountain, below the marble quarries, and surrounded by thickets of poplars, laurels, myrtles, pines, olives, and mastich trees, it possesses olive-yards and apiaries of considerable extent; it produces honey nearly equal to that of Hymettus, of which it used to send a quantity annually to Constantinople; it paid no taxes and enjoyed great privileges.

Below Pentelicus lies the famous plain of Marathon, shut in between two ridges of hills and watered by a little river from mount Parnassus, which runs through it. This plain opens on the sea, where it presents a good anchorage for ships; and it was here that the Persians landed their vast army destined for the invasion of Greece. Part of it is now a marsh in the midst of which is a hillock, similar to those frequently found in the Troas, containing probably the bones of the heroes who died on this spot in defence of their country; on opening it nothing was found but a few remains of urns. In a marsh on the coast are still perceived the foundations of ancient marble monuments, probably some of those raised to testify the gratitude of the republic. The village of Marathon contains about 200 inhabitants, whose cottages are surrounded with gardens full of apricot trees, vines, and olives. The only remnant of antiquity about it is an ancient basin which receives the waters of a neighbouring fountain. The desert mountains near it are sometimes infested by jackals, wolves, and foxes. A little farther, on the strait of Euripus, are the remains of the temple of Themis, formerly in the ancient port of Rhamnus. This little temple was built of blocks of stone, rudely sculptured after the cyclopean manner. In the interior a mutilated statue of the goddess has been found, which is very ancient, dating its mutilation probably from the time of the Persian invasion. Near this temple are the ruins of that of Nemesis, which has this singularity, that the mouldings of the cornice are painted red, and this painting has preserved from decomposition every place it has touched. This temple was of Pentelican marble, and its statue of Parian, a master-piece of Phidias, may perhaps lie buried under the ruins of the building, which seem to have been overthrown by some violent convulsion of nature. The ancient walls of Rhamnus are still visible, especially on the land side, where they are covered by the thick foliage of the mastichs. There is to be observed here the bottom of a marble chair, which might be either a votive offering, or the seat of honor for the magistrates of the city. On the same coast was situated the ancient port of Thorica, which served to protect the working of the silver mines; the remains of a portico of fourteen columns of the Doric order still exist, but the city has disappeared. The modern port of Rafty has probably drawn off what remained of its population. On Cape Sunium, now Colonna, where Plato ravished his disciples with his mild eloquence, and which is now uncultivated and desert, are still found some of the pillars of the fine temple of Minerva, which are of extraordinary length. Here the peasants on digging the earth, frequently find pieces of the silver-bearing lead.

From Athens a sacred road led to Eleusis, whose mysterious worship attracted the Greeks; some traces of this place are yet to be discerned, as well as some ruins of the monuments which bordered it. On the remains of the temple of Apollo, the last columns of which have been carried away by lord Elgin, is situated the convent of Daphne or the Laurels, with a church, surmounted by a dome that contains some fragments of antiquity. From thence we pass the ruins of the temple of Venus, and near to them the little lakes called Rœti,

which separated Attica from Eleusis; then the site of the paved court of the temple of Ceres, said to be the first place where grain was threshed to deposit it in granaries, a mark of the civilisation of the inhabitants, which owed its commencement to Eleusis. The temple of Eleusis has been so completely destroyed that for a long time it was impossible to recognise its plan; a society of English travellers have, however, discovered the propylæum which served for an entrance to it, and which appeared to be like those of Athens. In the court, which succeeded to these, they thought they found some traces of the chariots, in which the priests used to cause those that were initiated into the mysteries to be rolled along; to this succeeded a second vestibule, at the extremity of which was the front of the temple, supported by twelve columns. The level of the interior appears lower than that of the portico, which makes it probable that there was another flooring, below which they put in motion the machine with which they used to astonish and bewilder the initiated. The bust of the colossal statue of Ceres was still lying on the ground at the end of the last century, and the people of the village, though Christians, attached superstitious ideas to it, pretending that it procured them good harvests: it is now deposited in the university of Cambridge. Antique remains are dispersed through the village of Lefchimo, which occupies the site of Eleusis; it is inhabited by about forty families of Albanians, who live by agriculture, to which the fertility of the plain invites them. The ancient city was built partly on the coast, where there was a port, and partly on the declivity of the hill; and there are some remains of an aqueduct, which supplied it with spring water, and in the neighbourhood some fragments of tombs.

Two ancient ways, one passing by Marathon and the other leading directly to Thebes, conduct the traveller from the capital of Attica into Bœotia, crossing the Athenian Cephisus, that rolls its waters through a country covered with verdure, flowers, and fruit trees. Near this river is the ancient Colonna, celebrated by the misfortunes of Œdipus and the verses of Sophocles, of which Mr. Smart Hughes gives the following glowing account:—'All the expressions used by Sophocles to describe the beauties of this enchanting place are still applicable to it: the saffron, the narcissus, and a thousand other flowers mingle their perfumes to embalm the atmosphere; the young shoots of those ancient olives on which Jupiter fixed his watchful eye still extend their great branches, and form an arch impenetrable by the rays of the sun. At the commencement of the fine season the thickets resound with the song of the nightingale; and in autumn the vines, trained round the cottages and country houses, are loaded with purple grapes: the peaches, and especially the figs, are here of an exquisite flavor. At the time when I traversed on foot this delightful country, the golden yellow of the quinces, which loaded the branches, formed an agreeable contrast with the deep red of the pomegranates just bursting their shells: across the groves on the one side were seen the Acropolis of Athens with its temple of Minerva, mounts Hymettus, Anchesmus, and Pentelicus; and on the other the undulations of the Corydalean, Ægalean and Parnassian chains. This terrestrial paradise owes its beauty and fertility to the Cephisus, which laves it with its inexhaustible waters, fanned by the softest breezes: but the traveller should take heed; these balmy breezes breathe death, and a night passed within the precincts of the ancient academy may be his last.'

Passing from Eleusis through the defile of Cithæron we see near a torrent the walls and towers of an ancient fort, probably that of Æneus; a little farther to the north the walls, nine feet thick, and some remains of the towers of the ancient city of Eleutheria, called now Gifto Castro, a fort of the Egyptians or Bohemians. Here a great tower of an irregularly polygonal form, on the most elevated spot, commanded the defile. The convent of Meletius also resembles a fort; it has an iron door, and the walls are thick and pierced with loop-holes, that serve to give light to the cells of the monks, of whom there are about ten, who in case of attack become soldiers, and defend themselves against robbers. The church within the enclosure is ornamented with pillars of red marble from the ruins of Eleutheria, where once stood a temple dedicated to Bacchus. Situated in the gulf of Athens are two islands, famous in ancient days; one is Salamis, the kingdom of Ajax, celebrated for the greatest struggles between the Greeks and Persians: it is now called Colouri. The whole population is included in two villages inhabited by 500 Schypetars or Albanians, who cultivate the vine and the olive, and make turpentine. In the fine season they employ themselves in taking, on the coast, the octopodes, with pikes attached to poles thirty-six feet long; they also use the euphorbium soaked and ground, which they put under the stones in the water, to stupify the fishes. The convent of Phanomeri, fortified like a castle of the middle ages, is situated opposite the coast of Megara, supporting by its olive-yards about fifty monks, who reside in it. The church is adorned with columns of marble and granite. In the seventeenth century the inhabitants of Colouri left their cabins at the appearance of a strange vessel, and fled to caverns to shelter themselves from pirates; there are 100 of these caverns, in one of which, probably, Euripides composed his tragedies. Psyttalia, now a mere rock between Salamis and the coast of Attica, is the ancient Ægina, once one of the richest and most famous places in Greece, where the first Greek money was coined, and its fine China ware and bronze works were esteemed throughout the country: it was celebrated for its trade, and for a magnificent temple of Jupiter of which there are some striking remains. The principal front had figures on it, which were discovered in the trenches, and, after being repaired by Thorwaldsen at Rome, were deposited in the museum of antiquities at Munich. They represent, as some suppose, warriors of different nations on each side of a figure of Minerva; on the one side are Patrocles lying on the ground, Ajax protecting him, Teucer the archer, and Ajax the son of Oileus, both on their knees, with a wounded soldier; and on the other Hippothous, who is attempting to draw the fallen

Greek towards the Trojans, Hector fighting, Paris and Æneas both on their knees, and a wounded Trojan. There is a stiffness, however, in the draperies; the same countenance and insignificant expression is observable in all the heroes; and the figure of Minerva, covered from head to feet, resembles an idol cut in wood. The hair of all the warriors is arranged in pointed meshes, resembling perukes; the figures are painted blue and red, and it would seem that their armour was metal. In the same trenches also was found an enormous ivory eye, probably belonging to the colossal statue of Jupiter. The Venetians had a fortress here, which overlooked a town of about 800 houses. In the seventeenth century the partridges were so numerous that the magistrates used to oblige the inhabitants to go in the spring to look for their nests and destroy their eggs. At present this island exports only almonds; but its population, consisting mostly of Albanians, has increased to about 2000.

Bœotia, though little visited by travellers, and containing now no considerable city, still presents most charming scenery and a multitude of once celebrated places: it is a country abounding as formerly in grain; and, should Athens recover its numerous population, would be able again to supply it. Mount Cythæron separates it from Attica; Helicon and Parnassus lift their lofty summits over its western boundaries; and several other chains covered with pines, mastichs, wild olives, and evergreen oaks, traverse the interior, bordered by plains of rice, cotton, dourah, and wheat, and also some fine pasture ground. The largest of these plains, enclosed between ridges of hills and feeding flocks of fine black sheep, are watered by rivulets that flow from the heights around them. The Asopus runs directly to the sea: but the Cephisus falls into the lake Copais, already described. Steep rocks, covered with wood, border the gulph of Potsomathi, where stands the village of Mertino, in the neighbourhood of which are the ruins of an ancient city, perhaps that of Larymna, among which there is no public edifice or any monument of sculpture; the port, however, is yet to be observed. On the other side of the Copais we find some remains of the city of Orchomenes, called in the time of Homer the Athens of Bœotia: it stands just above the village of Scripou, which is inhabited by about 400 peasants. Here are to be seen the foundations of the walls of the ancient acropolis, well built, though without cement; and the paths, cut in the rock, which led to the city are still visible. The most curious part of the ruins is what Pausanias calls the Treasury of Minyas, of an age, according to Greek authors, before that of Hercules, which they fix 1350 years before the Christian era. It consists of two walls, on each of which is laid a large block of marble, and the entrance was probably closed by one side of the rock. Some curious inscriptions are found at Orchomenes; on the pillars of the temple of the Graces is to be seen a long list of musicians, actors, and declaimers; another inscription contains a contract, by which the right of pasture was preserved to the inhabitants of the neighbourhood. A small convent established here contains several fragments of ancient monuments, with inscriptions; and what renders this spot remarkable is, that at Orchomenes Sylla gained a battle which paved the way to his dictatorship. Not far distant, the village of Caprana indicates the site of the ancient Chæronea, where are seen on a height some ruins, probably those of the Acropolis, and seats cut in the rock, which mark the situation of an ancient theatre. This city was situated at the foot of Helicon, now replaced by Cranizza, in which is an old square tower whose massive construction may be assigned to very early times.

Helicon does not present the pleasing or sublime aspect we might expect from a mount consecrated by the poets; it has, however, charming valleys, covered with corn fields and orchards, over which poplars and plane trees rise on all sides. The muses' wood has become solitary; Hippocrene exists no longer; it is perhaps dried up; the Permessus rolls its waters to the Copais without inspiring any Pindar, or any modern Hesiod; and the celebrated Thebes, the centre of the confederated cities of this province, is now no more than a small town within the limits of the ancient Cadmeion or citadel; its poor remains scarcely afford any idea of its former state. It is the see of an archbishop; but it no longer possesses the silk manufactories and dye-houses established there by the Jews in the middle ages; nor that of pipes, which existed in the seventeenth century, the materials of which were brought from a quarry of earth peculiar to this country. The town of Lebadea, now called Livadia, is the chief place in Bœotia; it is situated at the entrance of a ravine, at the bottom of which flows the river Hercyna. It is the residence of a voivode and an archbishop, the centre of a considerable trade, and presents a more prosperous appearance than the other cities of the country: a castle built on a rock, but now dismantled, protects it. At the foot of the rock they show a cavity, which they say was the cave of Trophonius; but it is not deep, and probably was the subterraneous chamber where the image of the god was deposited; it is in fact only twelve feet square; in the upper part is discoverable a colored border, similar to what is found in other ancient Greek monuments. A grotto on the other side of the mountain, now converted into a Greek chapel, is more likely to have been the famous cave, where they terrified with spectacles and illusions those who came to consult the oracle. The springs of Lethe and Mnemosyne still flow in the same country, and mingle their waters with those of the Hercyna.

The defile of Cythæron is defended by an old fort; to the north of it stretches the plain watered by the Asopus, where the Greeks obtained the famous victory of Platæa. The foundations of this city are yet visible; at the foot of Cythæron, consisting of thick walls, flanked with towers; on the probable site of the Acropolis are some broken columns and unformed masses of masonry, and, below its walls, a few sarcophagi cut in the rock, but now broken. A poor village, inhabited by 150 peasants, occupies the situation of this once famous city; it bears the name of Cocla. Near the defile stands also the village of Calivia.

In the plain, between Leuctra and Platæa, are two hillocks, under which probably were buried the Greeks who perished in the sad contest between the Thebans and Spartans. A hamlet of the name of Lefka, consisting only of five houses, is all that remains of Leuctra; but another called Eremo-Castro, on the heights to the north, contains some ancient inscriptions. On the eastern coast of Bœotia we find Orope occupying its ancient site; its name is upon three or four marbles preserved at Scamino, supposed to be the ancient Tanagria. Farther on, at the outlet of the strait of Euripus, an area strewed with ruins appears to have been the situation of Anthedon; near it we discern the remains of the two moles, which in the form of a cresent enclosed the harbour, now abandoned; we perceive also some vestiges of the city and port of Aulis, where the fleet of the Greeks under the command of Agamemnon anchored; and of the city of Delium, where the foundations of a theatre are still visible.

The island of Eubœa, now Negropont, extends opposite to Bœotia as far as the coast of Attica, and approaches so near the Bœotian territory, that Chalcis, its principal city, almost touches the continent. The strait of Euripus is scarcely more than a canal; the ancients threw a bridge over it, probably in the same place as that which now passes from Bœotia into Eubœa; it consists of two arches, below which are some mills, and several towers defend its extremities. This island is crossed through its whole length by mountains, whose tops are entirely bare, and their height diminishes as they approach the coasts. The valleys between them are covered with a soil, in which, under a very soft climate, corn, vines, and olives, flourish in great abundance. The pasturage of Eubœa has been renowned in antiquity, as well as its baths, and its two springs, one of which, it was pretended, whitened the wool of the sheep that drank of it, while the other dyed it black. The ancients reported strange things of this strait and did not even agree among themselves; some stating the flux and reflux at seven times, and others, as Seneca, at fourteen times in twenty-four hours. A modern observer, father Babin, observed only the common ebbing and flowing of other seas, except on certain days, particularly during the first and last quarters of the moon, when the sea flowed irregularly; during the eleven days of the month, in which the water fluctuates, it changes its motion more than ten times a day, the wheels of the mills on it turning as often in contrary directions. Having stopped an hour and a half at one of these mills, he saw the course of the current change three times. During the rest of the month the sea rises twice a day to the height of one foot.

The modern name, Negropont, was given to this island by the Venetians, who held it for a long time, and built and fortified the city of Negropont on the site of the ancient Chalcis, where the diet of the confederated cities of the island sat, and where the celebrated copper manufactories flourished. This city is built with narrow and dark streets, and surrounded with ramparts; the suburbs are inhabited by Greeks and Jews, while the Turks occupy the part within the fortifications. Few ancient cities have left ruins in such good preservation as Eretria; its limits are marked by well-constructed walls, the citadel, the plans of the houses, and that of the theatre, the proscenium of which is almost the only part standing. The interior of the island is but little known. On approaching it from the isle of Andros, the first objects that strike the eye are the steep and pointed rocks of Cape d'Oro, formerly Caphareus; the islets and shoals round this cape are still as dangerous as when the Grecian fleet was wrecked at the entrance of Aulis, on its return from Troy. Violent tempests continually prevail round this promontory, and what aggravates the misfortune, in case of shipwreck, is, that the villages of mount Ocha in the neighbourhood are inhabited by ferocious Albanians, who, not content with dragging away the wrecks of the vessels, often murder the crews. These Schypetars, at first Christians, have become Mahommedans, although they have no religion except a few superstitious opinions; their wives still practise the Christian worship. Their ordinary occupation is the care of their flocks; they are called Acrianides or Barmades. The ancient Carystos, out of which the Italians made a modern city, under the name of Castel-Rosso, still contains 1600 Turkish families and 1400 Greeks. The inhabitants choose their voivode, always from the Turks, because these are most numerous; they also garrison the citadel. Beyond Carystos are seen on the declivity of mount Ocha, now St. Elie, the quarries, from which the ancients extracted the beautiful columns of cipolian marble, of which some now adorn the edifices of Rome. Entire pillars are still found here, which, after being cut, have been abandoned in consequence of some alteration in the state of Greece. Near the summit of the mountain the marble gives place to gneiss. Walnut trees are seen growing in it, and at this height an English traveller discovered the remains of a temple of singular construction, that seems to have been unknown to Pausanias. It was built of great pieces of freestone, on which were laid large flat stones with the entrance narrowed towards the top, like those of the Egyptian temples. The north of the island is less known than the south, being inhabited by a barbarous race, on whom the Turks themselves have not been able to impose their yoke.

Thessaly is separated by natural limits from the rest of Greece; the sea washes its eastern coast, Olympus closes it in on the north, the chain of Pindus towards the west, mount Œta on the south, and it is still further enclosed by mounts Pelion and Ossa; all of them poetic boundaries. Different ramifications of these mountains run out towards the interior, covered with pastures and separating the charming valleys through which winds the Peneus, descending from mount Pindus and receiving a number of tributary streams, some of which fall in cascades; after passing the delightful valley of Tempe, this river finds its outlet at the gulf of Therma. The sun darts its rays on this enclosed basin, and the heat would be intolerable were it not for the refreshing breezes from the mountain chains, which give birth to numerous springs of cooling

water, and shady forests. 'In picturesque views and enchanting landscapes,' says Dodwell, 'it surpasses Italy, and indeed every country in the world; lively and clear colors heighten the effect of the soft undulations of the distant mountains; no vapor interposes, as in Italy, between the landscape and the eye of the spectator; and the limits of the hills, which bound the horizon, are fine and distinct, without that sharpness which offends the painter.' The plains are covered with fine corn fields, plantations of olives, mulberry and walnut trees, surrounded with vines, fruit trees, cotton, tobacco, or odoriforous flowers; while cypresses and majestic plane trees decorate the scene. The declivities of the mountains furnish excellent wood for building, feed a multitude of game, and afford pasture to the Walachian flocks, which regularly descend every autumn, after the fall of snow on the Pindus, to enjoy during the winter the refreshing grass and mild climate of the interior. The Walach shepherds go about the middle of November, with their families and flocks, to fold in the great valley of the Peneus, and wait the return of the fine season. These nomades, habituated to live in the open air, and clothed in plaids, made of goats' hair, fix their tents, of the same material, under the green oaks, and as much as possible near the rivulets and woods. There is nothing poetic in their manner of living; they are half savages, with a fierce and martial air: wandering over mountains infested with wolves, and exposed to the depredations of Albanian robbers, they arm themselves to defend their flocks, and we need only to see them muffled up in their capes, and almost immovably fixed to one spot, casting ferocious looks over their sheep, goats, cattle, and horses, while their wives are groaning under the fatiguing labors to which they are doomed, to perceive at once that it is not among them we must expect to find the beau-ideal of rural life. When the rivers of Lower Thessaly overflow their banks, they raise their black tents, to go and seek pasture elsewhere. Sometimes they have the misfortune to lose a great part of their flocks by famine or different disorders. They sell their butter and cheese and wool, pay the capitation tax to the Turks, and, when the snow begins to disappear on mount Pindus, leave the plains, to gain their old abode on the heights. Although of a rough character, approaching to barbarism, this pastoral race has some estimable qualities: they are commended for frankness, which appears to advantage in contrast with the general dissimulation of the Greeks. If we seek in Thessaly for the descendants of the centaurs, who passed for supernatural beings by subduing the horse, and those unconquerable tribes who amused themselves by fighting with bulls, we shall still find men who justify this illustrious origin, by the efforts they are making to vindicate the liberty of their ancestors. The names of Boukavalas and Blackavas are celebrated in Thessaly; and if it should be objected, that our admiration of their acts of patriotism must be diminished by the recollection, that they are but bandit-chiefs, issuing from a mountain tribe who have well merited the name of Clephta-Choria, or the village of robbers, it may be asked in reply, Were not many boasted heroes of antiquity of the very same description?

On the southern side the entrance of Thessaly is most imposing; the defile of Thermopylæ, which crosses the chain of mount Œta; is the only grand route leading to it from Phocis: there are two mountain tracts which are not practicable, especially for armies. The passage of Thermopylæ has always been important for the defence of Greece, and it has been secured by walls and ramparts against the Gauls, the Romans, the Huns, and the Turks. In the age of patriotism, a chosen band of citizens has formed its chief defence against an invading army. On the right hand of the road is a hill on which a guard-house has been built in modern times, where, it is said, that Leonidas and his brave Spartans were interred. Every place on this sacred spot is interesting; but unfortunately the marshes, which have been formed on the coast, have buried, it is feared, many precious remains of antiquity under their rushes. The defile, however, still remains, and the warm springs which gave it its name; while of the six rivers described by the ancients only three are to be found: the Boagrius, the Asopus, and the Sperchius. Over the last, through the narrowest part of the defile, is the way to the springs, the principal of which, of a sulphureous quality, but very clear, issues, bubbling out of the foot of a rock, and its passage covers the reeds with a calcareous crust. Near their source these waters form rivulets which flow into the sea. The ancients had baths here, and an altar in the neighbourhood to Hercules. Here are to be seen the remains of the fortifications which formerly defended the pass; and, near the source of the Asopus, the situation of the ancient Heraclea is still visible. The precipitous rocks of the Œta, crowned with planes, oaks, pines, and other trees and shrubs, and furrowed by the torrents which descend from it, render this scene very picturesque.

Issuing from the defile, and passing through fields of rice, tobacco, and cotton, we reach in a few hours the town of Zeitoun, the ancient Samia, which is still overlooked by some ruins of the Acropolis. The exhalations from the marshes and rice grounds render the climate of this place unwholesome, which is evident from the pallid complexion of the inhabitants: they are about 3000 in number, mostly Greeks. Yet Zeitoun occupies a high situation, commanding a beautiful prospect; on the one hand of the sea and the island of Eubœa, and on the other of the passage of Thermopylæ, to the foot of the Œta. Zeitoun has a bishopric; its port is at the village of Stilidi, perhaps on the site of the ancient Phaleria; it has also another port, the village of Agia-Marina. There are two ways from this town to the capital of Thessaly; one by Pharsalia, the other by the coast of the Ægean Sea. The village of Eschinos, on the borders of the sea, is near the site of an ancient city, the ruins and acropolis of which are still visible. On a neighbouring height are seen some enormous olives that cover, with their thick foliage, the remains of foundations composed of massy stones, of a temple and of a church, which had replaced it;

time having here put an end to the worship both of Pagans and Christians. Passing from thence we enter a charming country, watered by numerous streams, and planted with mulberry, orange, and fig-trees. This was Phtiotis, the kingdom of Achilles. It is not quite certain where Larissa-Cremaste, the capital of this state, was situated; perhaps its ruins may be found at the foot of a hill between Graditya and Machala.

On turning the gulf of Pagasæ, Pelion rises to view, covered with groves and gardens: this picturesque amphitheatre extends across the country of Magnesia, terminated by mount Tisea, at the end of a large peninsula. Vines, olives, mulberry, and every kind of fruit trees, adorn the foot of Pelion, fine planes and chestnut trees cover its declivities, and the villages appear embosomed in forests; orange, citron, and fig trees fill the gardens of the peasants, who live by the manufacture of silk and oil, by their flocks of sheep and goats, by the game, and the fish on their coasts. The fruits are neither so good, nor so abundant, on the east as on the west of the mountain, arising probably from the greater humidity of the soil, occasioned by the numerous springs which run down it. The Greek peasants in Magnesia manufacture cotton yarn, and make bonnets, hoods, and other garments. The town of Makrinitza, at the commencement of the peninsula, is built of stone, and inhabited by about 1000 Greeks, most of them laborious artizans, who, if they could have communicated their energy to all their countrymen, would long since have rescued Greece from the yoke of the Turks. In the neighbourhood stands the well-built village of Volos, or Golos, inhabited by Turks and Greeks, who are very different in their manners; the houses are neat and lofty; the streets are adorned with poplars, walnut-treets, cypresses, and planes, on which are a multitude of birds, making the air resound with their melodious strains; and, in fine, those charming pavilions, where the Mussulmans give themselves up to the dolce farniente. The Greeks, though they have no pavilions, are not less fond of pleasure, but they are the pleasures of the table. At the distance of a league from Volos is a dismantled fort occupied by the Turks; and there are many pretty villages scattered over the country, in delightful situations, among which are Drakia, Portaria, Saint Laurent, Saint Georges, and Lechonia. Some ruins are discoverable not far from this place, by some said to be those of Demetrias, and by others those of Iolkos; there are still to be seen a cistern, the old foundations, and the acropolis. Here stands the village of Goritza, where, on festivals, the mass is still celebrated in the open air, after the eastern manner, near a spring which was probably held sacred by the ancient Thessalians.

Trickery, at the extremity of Magnesia, is inhabited only by sailors. On the eastern coast is the flourishing village of Zagora, with about 500 houses, so shaded with chestnut and walnut trees as to resemble a great wood. The wolves here so easily elude pursuit, that in winter they come and howl in the midst of the village. Many of the Zagorians emigrate, to go and work in other places, and return to enjoy the fruits of their industry. The principal islands, near the coast of Magnesia, are Skiathos and Scopelos; the first is fertile, but badly cultivated, abounding in vines, fig-trees, and wild olives; it produces also a multitude of goats, whose flesh is highly esteemed, and a great quantity of fish. Skiathos had two cities in ancient times, besides villages; now there is only one village and a hamlet, and the miserable cabins form a striking contrast with the richness of the scenery around, in which various trees and aromatic plants, border the rocks of white marble, which are seen in the uncultivated plains. In the church, a stone, bearing an ancient inscription, serves for the base of the communion table; the papas make their parishioners believe, that it has something mysterious about it, so that learned travellers have had great difficulty in obtaining a copy of the inscription. Scopelos is equally fruitful, but still less peopled; it furnishes excellent wines, oranges, citrons, olives, and figs, and some silk. Here the bishop of the two islands resides; there are also some monasteries, a dozen churches, and no Turks: it is independent.

In the way from Magnesia to the capital we find Velestin near the site of the ancient Pheræ; Pagasæ was its port, on the gulf of that name. In the suburbs is still seen the fountain of Hyperia; it forms a little lake of limpid water, bordered with cypresses, poplars, planes, and olives, the verdure of which forms an agreeable contrast with the handsome houses, and the white minarets of the mosques around it. However celebrated it was in the verses of Homer, and other poets, it no longer preserves any of the ruins of its ancient monuments. Near Lake Bœbeis, surrounded with its waving hills, are the picturesque ruins of an edifice, which appears to have been a temple; but the cities of Bœbe and Laceria have disappeared. Armyro is now one of the principal cities in the country; it is inhabited by Turks: a few ruins prove that it was inhabited in very early times; but more considerable remains are found at Aias, where there are stones ten feet thick, which are probably of high antiquity. A broad and convenient road leads to Larissa, still the capital of Thessaly. There are few places which have preserved their pre-eminence during so long a series of ages; we must not, however, expect to find any remains of antiquity at Larissa: nothing is to be seen but dirty streets; masses of houses irregularly built, but sometimes well grouped and mixed with cypresses and gardens, watered by fountains; bazaars abounding with victuals, but with very little valuable merchandise; some mosques, surpassing in grandeur those of the other cities of Greece; and a fine modern bridge crossing the Peneus, in the direction of the valley of Tempe. There is, however, one remnant of ancient manners to be observed at Larissa; it is the use of those old cars mounted on round solid pieces of wood instead of wheels, which in the heroic times were used in the Troad. There are scarcely any Greeks in the town; they have but one church, but it is the archiepiscopal church, on which depend ten bishops compris-

ing, with the archbishop of Larissa, the exarchate of Lower Thessaly, and of all Greece. The Turks have made this place the capital of a province containing 100 villages, mostly scattered over the ancient plains of Pelasgia; the city, according to Dr. Holland, has 4000 houses, and 20,000 inhabitants, among whom he was surprised to find many negroes.

On descending from Larissa, along the course of the Peneus, we cross some delightful plains, once animated with a numerous population, and still embellished by nature, and arrive at the foot of the mountain chains, through which the river winds its course to the Thermaic Gulf. These plains are sometimes excessively hot, and the inhabitants are much troubled with intermitting fevers. Travellers should visit the vale of Tempe in the spring, if they wish to see it without danger in all its freshness and beauty of vegetation. Here Olympus and Ossa, which seem to bound the course of the river on the north, present a curtain of verdure along the horizon; the forests of Olympus are crowned with summits covered with snow, that justify the epithet of snowy given to this mountain by Hesiod; while the less elevated Ossa has less wood, and is not so much watered by springs. A little village, called Baba, stands below the confluence of the Peneus and the Titaresus, in a circular plain near the entrance of the valley. Domes, minarets, and houses, are grouped together in a most picturesque manner, with vast plane trees, cypresses, and pyramidal pines. Some think that this village stands on the site of the ancient Elatea; in going to it you coast along a pretty large lake, or more properly a marsh, called Nezero, anciently Nessan. On entering the valley of Tempe, you become sensible that the Greek and Latin poets have a little exaggerated its beauties; there are many superior scenes in Europe and other parts of the world. This defile, however, through which the streams of Thessaly flow into the sea, and which is enclosed by Ossa and Olympus, unites natural beauties of a kind rather striking than agreeable;—a river, the waters of which, always agitated, are shaded by planes, on the branches of which the wild vine hangs its leafy festoons; rocks, more or less elevated and steep, raising themselves above the banks of the Peneus, in some places at the distance of not more that 200 or 300 feet; whilst an ancient paved road, sometimes cut in the rock, sometimes raised in terraces, and sometimes shut in by the narrow valley, passes along the river, often at a considerable height: such is Tempe. In the middle of the valley there is a cold spring at the foot of a rock, where travellers generally halt, and near it a dismantled tower. A Latin inscription on a rock states, that Cassius Longinus fortified this passage, but since the Persian invasion the Greeks have abandoned this part of their territory. In the spring of the year some boats navigate the Peneus, with hives, in order to collect the honey on the coasts, and on the sides of the mountains, while others drive their cars also, laden with hives, into the meadows of Pharsalia for the same purpose, which they afterwards leave, to follow the spring in the higher regions of the mountains.

On issuing from the valley of Tempe, we perceive the mouth of the Peneus and the boundaries of Macedonia. Here is a flourishing city of Magnesia, called Ampelachie; the inhabitants of which distinguish themselves by the spinning and dyeing of cotton; and it is thought that the waters of the country contribute to the brilliancy of the colors, which they know how to apply to this sort of thread: those of them who have travelled in the west for the purposes of trade wear the European costume. There is a Greek school here, founded by the bishop of Salonica, Platomenos Dionysius. The whole population amounts to between 5000 and 6000 souls. The nearest sea-port for the exportation of cotton is Karitza, about six miles distant. Another industrious place, of the same country, is the little town of Rapsiani, which has a Greek school by the same founder, and also exports the same articles. Returning to the south of Larissa, we arrived at the ancient Pharsalia through some narrow passages of the mountains. Not far from it was situated, on the Eripeus, the city of Melitea, which is reduced to a very small population, as are many others, which once peopled Thessaly. Ascending towards the source of the Peneus, we pass by Triccala, anciently called Tricca, in the middle of the last century the most considerable city of the province; but the cruelty of the Turks, and the pestilential exhalations from the rivers in the neighbourhood, have destroyed its splendor: it occupies, however, a charming situation in a valley of the Peneus; its Greek churches, its mosques, its old citadel, and houses, intermingled with groves of trees, form with the verdant scenery around a most delightful picture. The market is held under the shade of vines, but the houses are surrounded with filth: it contains about 7000 inhabitants.

On the side of Mount Pindus, near the village of Kastraki, there are some ruins which are supposed to be those of the ancient Gomphi; and in this mountainous region are to be found the Meteores of Stagous, little monasteries, built on the edges and platforms of precipitous rocks, standing like pyramids in a wild desert. Here, free from the attacks of robbers, and more useless to society than their brethren in the plains, live a number of monks; who will, however, afford the rites of hospitality to any traveller who shall have the courage to suffer himself to be drawn up by a rope and pulley. It is indeed no joke to find one's self suspended at the height of 150 feet, by a simple cord, between heaven and earth, at the discretion of these solitary beings, by whom every stranger might justly be suspected. There is nothing particular in these monasteries beside their elevated situation; the monks seem to have as little occasion to think as the birds who nest in their rocks; they have scarcely any books, and trouble themselves little with the history of their aërial dwellings. Under the reign of Ali Pasha, they were compelled to become the gaolers of his state prisoners. Formerly there were twenty of these monasteries, now there are only seven, the most considerable of which are those of Meteoron and Varlaam. They consist of hermitages, chapels, and altars, built on the platforms and in the holes and crevices

of the rocks, and the hermits who inhabit these inaccessible places have renounced all earthly wealth; they, however, possess considerable revenues, and pay a rent to their landlord as well as a tribute to the patriarch. At the bottom of these five rocks Stagous occupies a territory fertile in cotton, mulberries, and corn: the inhabitants manufacture the silk and send it to the depôts at Larissa. The town has a bishop, who is a suffragan of the archbishop of the capital. The river Cachia, flowing through the country and uniting with the Peneus, seems to be the Ion of the ancients.

Leaving Ætolia, and proceeding along the southern coast of the Corinthian Gulf, we arrive at the bay of Salone, formerly Crissa, which experiences a regular tide, of which there is little appearance in the whole of the gulf besides. The fine plains of Phocis, watered by the Cephisus, are at first concealed by mountains and rocks; the country, however, extends between the bay and the mountains; and the scenes where the festivals of Delphos were celebrated open to the view. At the entrance of the bay, where Æanthus once stood, is now situated the town of Galaxidi, inhabited by a race of men, almost barbarians, devoted to a sea-faring life, despising every thing that has the appearance of convenience and comfort, living on vegetables and fish, and in miserably built houses: their town is situated on a naked and barren rock. It is thought, that the fear of the cupidity of the Turks has induced these habits of wretchedness, though they possess about fifty buildings. Passing the port Janiki, and the mouth of the Hyleus, which flows from the plain of Malandrino, we come to the road of Salone, and the mouth of the ancient Plistus, now called Crissa, as well as the town situated on its banks; the ancient town, together with Cirrha, its port, exists no longer. Crissa contains about 1200 or 1500 inhabitants, and is the see of a bishop. Salone, occupying the site of Amphissus, is more considerable: it has about 6000 inhabitants, of whom more than 2000 are Turks. There are in this place some remains of the sepulchres of the ancient Amphissians.

Ascending the Plistus, and crossing the plain of Crissa, we soon reach Delphos; here the ancient hippodrome has disappeared, as well as all that once rendered this place so famous in Greece, and made it, as it were, the seat of government for the priesthood. The port of Crissa formerly experienced the sanguinary vengeance of these priests, for having molested the pilgrims in their way to the shrine: the town was razed, and the inhabitants exterminated. The curse of Apollo is, however, now forgotten, and the plain is overshadowed with olives and mulberry-trees. On approaching Delphos are seen some ancient cryptæ cut in the rock; under the arches we perceive sarcophagi, attached to the sides of these caves, with their coverings removed and for the most part broken: over every two sarcophagi an arch is formed, as is customary in Egypt, in Persia, and even in Italy. Some of the foundations of the walls of Delphos are still visible, and even the remains of an entrance composed of small stones cemented together; large blocks of stone are dispersed here and there in the neighbourhood, probably intended for the repair of the works. The ancient city stood in a little circular and deep valley, surrounded by the rocks of Parnassus, with its triple peak, and those of mount Cirphis, and almost entirely separated from the rest of Phocis. The place is so small, that it is difficult to conceive how a city of any considerable size could be built there: very few fragments of marble have been discovered; and yet we cannot suppose that much of it is buried in the ground, since there is a very shallow bed of soil to cover the rock in this narrow valley. Some broken pieces of earthenware are also found covered with a fine black and red varnish. The splendid temple, elevated by its situation over the other edifices, enriched by the offerings of nations and kings, embellished with the masterpieces of sculpture, and constructed with the greatest magnificence; that temple, so protected by public veneration, where different nations deposited their treasures, where the blood of victims incessantly flowed, and where the oracle of the Pythoness frequently decided the fate of empires; all has disappeared, with the exception of a small part, which has escaped the attention of most travellers, and which Mr. Smart Hughes alone seems to have penetrated. It is a kind of cell, or cave, dark and dirty, where it is difficult to breathe; on the north wall, formed of large pieces of cut stone, a great many inscriptions are seen; it was with the greatest trouble that the English traveller deciphered the best preserved of these inscriptions, containing the act of cession made to the temple; thus leaving no doubt of the ancient destination of this monument.

The Castalian fountain is almost the only thing which remains unchanged at Delphos; it rises, as formerly, at the foot of the peaks of Parnassus; the water, clear and pleasant to drink, falls from a rock, covered with an overhanging yew-tree, into a basin shaded by a fig-tree, and descending by a ravine of the valley to join the Plistus. Spon, after drinking of the fountain, was so inspired that he composed two Greek quatrains on the spot; and Chandler experienced something of the same sensation; but it appears that the charm no longer operates on poets by profession. 'At Castri,' (the present name of Delphos) says lord Byron, 'we drank of the water of a dozen rivulets, some of which were none of the clearest, before we could decide, to our satisfaction, which was the true Castalia; and this even had a detestable taste, proceeding, I suppose, from the fallen snow.' Near the spring some traces have been discovered of the bath of the Pythoness; the descent is by a few steps. The Delphian girls, still very handsome, are seen at the present day drawing water from this fountain, which is now only applied to the most common uses. Castri has not more than 100 houses, and those, for the most part, miserable cabins with only one room each; the best have only a first floor for the residence of the family, while the ground-floor is divided, as is customary throughout Greece, into a stable and a cellar. Poor, and peaceably disposed, the Castriots seldom stray from their

valley, and are rarely visited by foreigners; the Turks, even, forget them. They are Arnaouts by their origin; they mostly speak Greek and Albanian; and, notwithstanding their poverty, know how to read and write. Silk and oil are their principal productions; but they cultivate some grain also upon the ancient terraces, constructed for a very different purpose.

Upon a declivity of mount Parnassus is a little convent, the monks of which, subsisting by the culture of their fields and by alms, have always some bread and cheese, olives and wine, and a chamber without furniture, to offer to travellers. In their convent are seen some fragments of antiquity, such as metopes, altars, and inscriptions. Not far distant lie some great blocks of stone, which probably have been cut from Parnassus at a very early period; some think that they are the same as those which, according to Herodotus and Diodorus, crushed the army of Xerxes. Parnassus, extending as far as Bœotia, is now called Lyakoura; this barbarous name, however, is not quite modern: anciently one of the mountains of this chain was called Lycorea, and one of the most ancient places in the country Lycoreia. At a village in the mountains, bearing the same name, it is said, there are some antiquities; in winter the snow forces the inhabitants to leave it, and betake themselves to the neighbouring villages. Parnassus is a third rate mountain: the snow rests on it only a part of the year; and it is thought that none but subalpine plants grow on it; yet a most extensive prospect is enjoyed from its summits, on the one side beyond Eubœa, and on the other across the gulf of Corinth, as far as the mountains of Peloponnesus. The whole of Phocis lies under the feet of the spectator, with the poor villages that occupy the places of the little flourishing republics of the Phocenses. There is only the plain watered by the Cephisus, now Mauronero, between Parnassus and the mountains of Thessaly. Upon a platform of Parnassus is a grotto of 300 feet long by 200 broad, which receives only a feeble light through a narrow and low entrance; stalactites hang from the roof in the form of draperies and chandeliers; the stalagmites, that rise from the ground, assume the most singular forms; and the water, dropping from the top of the grotto, renders the floor very slippery. At the end of this cave there is a passage, which perhaps leads to another. An ancient inscription on the rocks shows that the place was dedicated to the nymphs and the god Pan.

Proceeding along the gulf of Aspra Spitia, to the east of that of Salone, we arrive at Dystome. The country round it is planted with the Kermes oak, which must have been very ancient; as, according to Greek authors, the town of Ambryssus was formerly engaged in the cultivation of this article. This town must have nearly occupied the site on which Dystome now stands From Aspra Spitia, formerly the gulf of Anticyra, hellebore is no longer exported, but a pretty brisk trade is carried on in the productions of Livadia. Near a barren coast is situated the monastery of St. Luke Styrites, built in the Gothic style; the church, which attracts many pilgrims, is partly paved with great flags of ancient green stone. Spon found, in the monastery, 150 monks, and in their cellar vessels twenty feet long. In the library there are only a few manuscripts spoiled by the dust. Near St. Luke stood the port of Balis, where they used to fish for purple shells. On this port also is the little port of Kokosi, and two little islands; Didascalo, receiving its name from an ancient school, now in ruins and the abode of wild pigeons, swallows, and immense bats; and Ambelia, full of rocks, where falcons nest in great numbers. Elatea, the ancient capital of Phocis, is in ruins: and the tomb of Laius, and the temples formerly scattered over it, are now no more. It is still, however, possible to assign the situations of the fortified cities of the Phocenses. Elatea was probably situated at the entrance of the defile, leading from the plain of the Cephisus to Thermopylæ, where now the hamlet of Turco-Chorio stands. Ascending the Cephisus, from this place, we find the remains of an ancient fort, perhaps Drymæa. Other ruins, at the entrance of a road leading to Delphos, seem to mark the situation of the ancient Charadra; and the village of Agourea is probably on the site of ancient Lilæa. There are also remains of the foundations of walls and towers in the modern villages of Ladon and Velizza, the latter the Tithorea of the Greeks. Near the village of St. Blaise must be sought the site of Panopeus; the circuit of the city is marked, and the ruins of the citadel are on a steep rock. There is the appearance of an acropolis near the village of Thavlia, the ancient Daulis probably, pleasantly situated on the Parnassus. On this mountain, and at the foot of the chain, there were eight ancient places, not less fortified by art than by their situation, being founded on precipices and heights very difficult of access; walls, flanked with round or square towers, follow the inequalities on the surface of the rocks, on the declivities and at the foot of which are some towns: forts only, without towns, protected the most important defiles of the country.

The half savage district of Ætolia presents itself on passing the mountains of Pindus, which leads from the frontiers of Epirus and Macedonia to Thermopylæ, and forms the barrier of the north of Thessaly. The Achelous and the Evenus, descending from the same chain, bound it on its two sides as far as the sea, into which they empty themselves. Upper Ætolia has always been the resort of robbers, and left uncultivated; but lower Ætolia, with Æolia the maritime district, was more civilised, and contained some flourishing cities, the names and monuments of which have disappeared, and we can now scarcely recognise a single trace of antiquity. Aspropotamos and Fidari are the modern names of the country, and the chain of the Pindus, separating it from Thessaly, is called Agrapha. Foreign people and foreign manners have been imported into this country; and the true descendants of the ancient Greeks are to be found among the poor goatherds, who forsake the soft climate of the plains to take refuge from oppressions among rocks and forests on the Agrapha, buried in snow during a great part of the year. These shepherds have some vivacity, energy, and, above all, the love of liberty, and

are worthy of that improvement which we may hope is awaiting them. The climate of their mountains is not so rough as that of Switzerland; fine forests, wholesome springs, valleys delightful in summer, flocks which furnish them with every necessary of life, and liberty are their inheritance. They have a bishop residing at Gardiki, and there are some anchorites dispersed over the deserts of the mountains. The canton of Carpénitzé, near that of Agrapha, is inhabited by Walacks and Mahommedan Albanians; other Walacks, formerly living peaceably in Apodotia, of which Cosina was the capital, forsook their establishments, harassed by the despotism of Ali Pasha, preferring a life of freedom on Mount Aninas.

Cavari, a dreary province of Upper Ætolia, appears to be composed of rocks separated by precipices, with a few cabins here and there, completely isolated by the snow during several months of the year; so that the inhabitants are, during that time, obliged to live on provisions which they have collected in the fine season, and which are generally very miserable. Chestnuts serve them for bread, and to these they add some salted meat, &c. The chief place is Amourani; the district contains sixty-three villages, a bishop, and about 12,000 inhabitants, nearly one-fifth of the whole population of Upper Ætolia. These miserable creatures are reduced to the most abject state. They are seen in crowds in the lower regions even as far as Constantinople, and the Ionian Isles, displaying to the Greeks and Turks the wounds and disgusting diseases which they have partly provoked or brought upon themselves in order to excite compassion. They say that these beggars have medicaments to give themselves the gutta-serena, and to bring out livid wounds. Expert in every art of begging, they gain considerable sums, and, though taxed by the Turks on the way, carry home sufficient to live upon till they are able to take new excursions, and even lay up something against old age. Their wives, in the mean time, are burdened with all the labors of the family and the field. These people are supposed to be derived from a tribe of those Bohemians which still infest Albania, and it appears sufficiently probable from their swarthy complexions, their thick and matted hair, their intemperate habits, and wandering manner of life. All the advantage they have over the Ghiftis, or Bohemians, they owe to the influence of Christianity, which they profess, and which preserves them from still greater barbarism. Amourani is surrounded with the rocks of Mount Corox, and contains about 1000 people; the way to it is very dangerous, leading along frightful precipices, and over mountains that beasts of burden cannot climb.

In proceeding along Southern Ætolia, towards the sea, we cross the district of Vlochos, bounded on the west by the Acheloüs, and abounding in corn, maize, olive-oil, cotton and currants. Thermus and other cities used to embellish this charming country; now there are only a few villages, the principal of which is Vrachori, inhabited by Mussulmans, Christians, and Jews: the latter carry on a trade in silk, and the former manufacture morocco leather. A lake at some distance, eighteen miles long, occupies the bottom of a basin crowned with woody hills; it is the ancient Trichonium, now Souli; it is divided by a marsh, and its waters flow by two branches into the Acheloüs; a great causeway, resting on 366 arches, encircles a part of it, a work taking its date from ancient times, when the lake presented to view an active and prosperous population; now there are only the huts of a few butchers and fishermen. There are to be seen in this country the ramparts and gate of Arsinoë; Angelo-Castron now stands on its site, built under the later Greek emperors: there is nothing remarkable here, but an ancient monastery bearing the name of Pontocrator, or the ruler of all things. Through a defile of the Aracynthus, infested by banditti, we enter the maritime district of Zigos; the valley of the Tombs reminds one by its name of the crimes often committed here, and it is necessary to have a good escort, in order to pass this place without fear: but the precipices with which it is bordered warn travellers of another sort of danger. On the sea shore and at the mouth of the Acheloüs we find a more hospitable country, and softer manners; the chief employments of the people lie in the fisheries and olive-plantations. The little islands of the Echinades almost join the shore; but Anatolico, the ancient Pemili, remains separated by a channel; 300 Turkish and Christian families inhabit it; the climate is unwholesome and diseases frequent.

The Ætolian coast presents scarcely any place of note, except Missolonghi, or Messologgion, situated on a channel abounding in excellent fish. The inhabitants carry on a little coasting trade, salt fish; make salt and boutargue; and export acorn cups for dyeing and tanning. The oak of Ætolia suits better for this purpose than that of Peloponnesus. There are about 800 houses in the town, a few small Greek churches, and a mosque; the merchants have some warehouses and about thirty small vessels. The Greek women here are very fond of gowns of a very striking color, as red, blue and yellow, and wear over them a shawl of a color equally lively. The marshes extend some miles along the coast, so that the vessels cannot approach very near the shore: on the one hand, the sight is offended by these stagnant spots, which are the resort of a multitude of aquatic birds; and on the other it is astonished by the vigor of the vegetation around, especially in the gardens. Cotton, tobacco, sesamum, and maize are equally thriving. The coasts of Carthaga furnish excellent wine; and near this town there appear some ruins, probably those of ancient Acragas. Hippochon, at the mouth of the Avenus, seems to occupy the site of Chalcis. The most considerable ruins, in the neighbourhood of Missolonghi, are those which the Greeks call the Castle of St. Irene; on an oblong hill there are some walls flanked with square towers, and at the western end the remains of the acropolis still more ancient; rubbish, intermixed with tiles and earthenware, fill the interior of this ancient city; and on the south side is a theatre, some of the seats of which are still visible. Near the theatre is perceived a square space cut in the rock, below the level

of the soil, which seems to have been a granary: near the middle of the town there are some walls of a beautiful construction, but as there is no marble, no sculpture nor any inscriptions, the name of this place is quite unknown.

On the west of the Evenus or Fidari extends another district, answering to the ancient Ætolia Epictetes, called in the Levant the Venetian. It has sixteen miserable villages, and about 1357 Greek and Mahommedan families, and offers nothing remarkable, except the castle of Lepanto, formerly Naupacte, commanding with that of Patras in the Morea, the entrance of the great gulf of Corinth; it occupies the extremity of the cape once called Antirrhium. Taphius is the highest mountain of this depopulated district. In a grotto, not far from Naupacte, the young Greek girls consult the lot about the choice of a husband, as once they addressed their prayers to Venus. The country on the gulf of Crissa, to the east, inhabited formerly by the Locrians, now forms the province of Malandrino, inhabited by about 6000 people, and infested by robbers, who find a refuge in retreats inaccessible to those who pursue them. The village of Malandrion, in a valley watered by the Hyleus, and Galaxidi with its port, are the principal places; the poverty of the latter port sufficiently proves the stagnation of trade on this coast.

The aspect of the country and the manners of the inhabitants of Acarnania have undergone little change since the days of antiquity. It contains, as formerly, only fortified towns, or groups of houses; the little islands and bays are favorable to piracy, as they once were, and the interior still serves for a retreat to bands of robbers, whose ferocity has not diminished since the earliest historical times of Greece: the district of Heromeros, opposite to Ithaca, is a favorite retreat for them. The forests, chiefly consisting of oaks and chestnuts, abound in wild boars and deer; meadows and desert valleys, lakes, rivers and mountains, shaded with pines and cypresses; and the absence of all traces of the plough, and of the haunts of civilised society, remind us of the immense savannahs and heights of South America. A few poor villages widely scattered form the residence of the modern Acarnanians; while some solitary chapels, or monasteries show the religion which they profess. Not one flourishing city has assumed the situation of those of the ancient people, the ruins of which have for the most part disappeared; Metropolis, the ancient capital, and Stratos lying in the east of the country, cannot be discovered with certainty; but the ford of the Acheloüs is still practicable, except in winter. In the environs of Lepenou, supposed to occupy the site of Stratos, is seen the monastery of Licobiti, the most considerable in Acarnania, containing about twenty monks, and the village of Machala, consisting of seventy houses; not more than ten families form the population of Medenico, on the declivity of mount Vips. Here the ruins of ancient Medeon are visible in several large blocks of stone, near which is the defile of Porta, by which it communicates with the sea; in this pass is situated the little monastery of Saint George. The ancient port of Limnea is in the same state of ruin; it is now called Loutraki, and has a custom-house and some warehouses, but attracts scarcely any vessels. There is little more activity in the small port of Candili, at a short distance from which are some ruins, probably of the city of Alyseus. So great has been the decline of this district, that of 224,000, which constituted the former population, there are said to be not more than 8000 remaining, including Agrais and du Valtos, and its depopulation is continuing. The little trade that is carried on by the inhabitants, is transacted at Dragomestre, but a part of this town, near the sea has fallen into decay; the remainder is inhabited by about 100 Greek families and some Mahommedans; the only antiquity to be met with is found in the remains of a fort. It is surrounded by deserts, the great forest of Menine, and the monastery of Vedernico.

On the west, towards the gulf of Previsa, are the ruins of a place very celebrated in Grecian history, or rather in that of Rome—the city of Actium. Here the monuments, both of the victors and the vanquished, have sunk into decay, and we can scarcely recognise the foundations of the temple, the theatre, and the site of the naumachiæ. The city of Nicopolis, built by Augustus opposite to Actium, no longer exists, though the principal monuments, and even the houses, are standing, having survived the existence of the Roman people. At some distance from Actium is the lake of Bulgaria, surrounded by thick forests, and the monastery of Pleya, almost as wild as the country. Warm and moist vapors rise from the marshes near the sea, and noxious animals, such as serpents, vipers, and troublesome insects abound. The most considerable place in the west of Acarnania is Vonitza, a town inhabited by 100 Greek families, and the capital of a canton containing 2550 people; it stands in a valley watered by the Kiphalo-Vrysi, and is commanded by a mountain fortified by the Venetians. Dye-stuffs, rice, and maize, are exported from this place to Sainte Maure. There is a convent near, bearing the fine name of Paradisi, whither pilgrims resort to be cured by the Virgin of the fevers with which they are afflicted.

The gulf of Ambracia, now Previsa, strait at the entrance, and incumbered with pieces of rock, will not admit large vessels; it washes the canton of Vonitza, and the whole of Acarnania. A number of creeks and bays indent the shores of this gulf, inhabited by pelicans, cormorants, swans, and other aquatic birds; crabs and shell-fish of different kinds, as well as dolphins, mullets, eels, and a variety of other fish, employ the hands, that under the despotism of the Turks do not find security in agriculture. A north-west wind, called Imbat, blows on this gulf from eleven o'clock till sun-set, and during this time the fleets carry their shell-fish and other marine productions to the coast of Acarnania; at the close of the day the sea is calm, and the fishermen apply themselves to their fishing during the night. The island of Sainte Maure or Leucadia, once a part of the continent, and separated in fact only by a narrow strait, is now reckoned among the Ionian Isles, under the protection of England. The neighbouring islets are favorable

for pirates, and the channel itself was much infested previous to the arrival of the English; Leucadia, however, has a fortress which commands part of it, but that can be bombarded from the coast of Acarnania. There are still to be seen the remains of a bridge built over the strait by the Turks. For about twelve leagues round Leucadia presents good pasturage, and fields fertile in corn and fruits, such as oranges, citrons, figs, and almonds; yet the harvests do not furnish much more than half the quantity consumed by about 18,000 people, contained in the capital and about eight or ten villages, the remains of thirty, which once existed. For further particulars of this island, as well as of Ithaca, Cephalonia, &c., see IONIAN ISLES.

Beyond the gulf of Arta, and at the foot of the mountains of Albania, two little republics have not long since displayed the heroic valor of their ancestors, or rather that austere courage and inflexibility of the ancient Spartans, which sometimes bordered on ferocity. Parga and Souli have acquired some celebrity in the records of their country. Ancient Epirus, or Lower Albania, is a mountainous but fertile country, supporting a population of Greek origin, but as warlike and energetic as the other Greeks were mild and peaceable. The situation of their villages is such as to induce them to form themselves into independent tribes, and to carry on a warfare against their neighbours, or any troops that might be disposed to subjugate them. They cultivate the soil no farther than is necessary to afford them a supply of miserable food, but they like to possess large flocks; and, while the life of a shepherd is in other places peaceful, here it is intimately connected with the profession of arms. Privations do not affright them; they delight in danger; if their enemy injures them, they live in the hope of taking signal vengeance; their fiery passions know no moderation, and, if despair seizes them, they are the first to sacrifice every thing that is dear to them. When they lose their liberty, and their native soil, nothing any longer attaches them to life; they are totally unmanned, become incapable of any generous resolution, and brutalise in servitude. We refer here to the Epirots, who practise the Greek worship, and speak the Greek language; the Armaouts, or indigenous Albanians, unite the greater barbarism with the fanaticism of the Mussulmans. From some remains of antiquity it would appear, that the Parginots very early established themselves in this country; but it has been in modern times, that they occupied and fortified the steep rock on which they lately established themselves, perhaps to shelter themselves from the inroads of other Albanians. Their citadel was on the rugged summit of a precipice, beaten by the waves, and commanding a little territory of unequal level, but well watered and covered with corn, groves of cedars and cypress, and plantations of olive and orange trees. Parga, notwithstanding the weakness of its population, amounting only to 5000 souls, made its independence to be respected by the Venetians, though it could not hinder them from putting a garrison into its port, which had become important for the protection of the coast of Epirus. It remained for the ferocious Ali to complete its ruin, and the expatriation of its people, as we shall see in the slight sketch of modern Grecian history, which we intend to present to our readers. Souli, which has sustained a more bloody and obstinate struggle against the same oppressor, is composed of several villages situated among the rocks, and surrounded with fields, pasturage, and plantations. A river, which appears to be the Acheron of the ancients, and which falls into the sea near Parga, waters this mountainous territory, a little nearer to the sea than Janina, the capital of Epirus. Its population is greater than that of Parga; it was not able, however, to protect it from the forces of Ali Pacha, who attacked it with 12,000 men; but of this barbarous and unwarrantable outrage we shall hereafter speak.

III. The Peloponnesus has received the modern name of the Morea, according to some, from its plantations of mulberry trees; and to others from the epithet of Oraia, the Beautiful, which was given to it by the ancients. Here, as in Great Greece, a few ruins are the only remains of flourishing kingdoms and republics; and it is surprising even to find these, after the many natural and political revolutions which this peninsula has experienced. Of the 2,000,000 inhabitants once living here in splendor, not more than 300,000 now remain, scattered chiefly in mean villages, and barely subsisting by the produce of their land, their flocks, and other resources which nature has provided for them. Almost the whole of the peninsula is surrounded by mountains of a small elevation, barren on their summits, but fertile at their bases. Mount Pholoe, in Arcadia, and the Taïgetus in the country of the Spartiots, are distinguished in those chains which stretch to the southern extremities. The Alpheus, the Eurotas, and the Pamisus, which issue from the mountains of the interior, flow through the valleys, the fertility of which has been justly celebrated by the ancients.

The corn harvest here is abundant. The wheat is gathered in the month of June, and yields ten or twelve per cent. A clayey soil, requiring little culture, constitutes the fields destined for the growth of corn; but the defects in their instruments of husbandry necessarily diminish the harvests. The barley of the peninsula is gathered in May, but is not equal to the wheat, which, notwithstanding the bad cultivation, is exported in great quantities; and the Ionian laborers, who come to assist in the harvest of the peninsula, are paid in this commodity, which is scarce in their islands. The bread of the Morea is however bad, on account of their negligence in the grinding and baking.

The soil of the peninsula is not less favorable to the cultivation of vegetables. Instead of those large forests of lemons, oranges, and citrons, which formerly stretched as far as the eye could reach in the environs of the principal towns, we now see only small orchards of them; and the lemons are small, and rather acrid: the peaches, pomegranates, and almonds, also partake of this flavor, as well as other stone fruits, which they have no idea of improving by grafting. The figs have a more agreeable taste, especially in the

neighbourhood of Calamata, owing to the progress of caprification, which is practised almost throughout the archipelago. There are two kinds of fig-trees, the wild and the domestic, both of which bear fruit; but that of the latter falls before it is ripe, if precautions be not taken to prevent it. When the wild figs are ripe, which is in the months of June and July, they are gathered and fastened by strings to the domestic fig-trees; soon afterwards small gnats proceed from the wild figs, and introduce themselves, by what is called the eye of the fruit, into the still green figs of the domestic tree. This is called caprification, which process gives to the fruit great sweetness. The insect which conduces to the maturity of the fruit transforms itself into a worm; to prevent its hatching, the figs are placed in an oven, or kept in jars hermetically closed. The olive-tree seems to belong peculiarly to the Morea, it shoots and multiplies every where, though in a wild state; and there are still the remains of woods and forests of these trees. Under the government of the Venetians, the Morea furnished an immense quantity of oil, the best of which is now chiefly produced in Corinth, Napoli di Romania, and the district of Maïna. Although in other parts the olives are not cultivated with equal care, the harvest is always abundant.

It is different with regard to the silk: mulberry trees do not fail, or rather would not fail were they to establish plantations; but there is a great mortality amongst the silkworms, which the Greeks attribute to sorcerers, instead of their own want of precaution: in the Morea 100 pounds of balls only yield from seven to eight pounds of silk. Neither is the Morea in its present state a wine country: vines are abundant; but with the exception of that of Misitra, and St. George in Corinthia, the wine is common, and in order to preserve it they mix it with resin, or even with turpentine, which renders it bitter. The Corinthian grape, which is the sort particularly cultivated by the husbandmen of the Morea, appears to have been transplanted from the isle of Naxos, and to thrive best in a dry and flinty soil which prevails in the peninsula. The vintage for these grapes is at the end of July and during the whole of the month of August: a very good wine is extracted from them, but, as they yield but little, they are principally dried for exportation. It is chiefly along the gulf of Corinth, and in the Ionian isles bordering on the Morea, that vineyards of this kind are found: they have succeeded to the plantations of tobacco, with which the Morea was formerly filled, and the quantity of Corinthian raisins which is generally exported in time of peace is valued at 6,000,000 or 8,000,000 of pounds. The cotton of the peninsula may vie in fineness and whiteness with that of Salonica and Smyrna: flax grows spontaneously in all parts of the Morea, but hemp fails there.

Argos, Messenia, and Arcadia, are capable of feeding great numbers of cattle, and the pastoral productions would enrich the inhabitants, had not the race of domestic animals greatly degenerated; the wool of the sheep also, which is naturally long and silky, would, if treated with suitable care, equal that of the Merino breed. Navarin and Napoli di Romania exported great quantities of it not long since. The butter, though excellent when fresh, will not keep, from a defect in the preparation. They export a quantity of raw hides, and acorns.

Plains covered with rosemary, thyme, wild thyme, mint, wild fennel, and other aromatic plants, furnish the bees with materials for excellent honey and wax; which, however, the people neglect to purify, and sell it in its coarse state. Many other vegetables would grow here in abundance, were the inhabitants to bestow more attention on them: it seems even certain, that the sugar-cane would succeed very well in some parts of the Morea.

Planes, carob-trees, cypresses, mastich-trees, kermes-oaks, pines and firs, together with laurels, roses, and myrtles, grow near the towns and in the deserts of the Morea: the large pines furnish excellent wood for building; those of Elis might be employed in the construction of men of war. The resinous wood of the Morea produces much tar, pitch, and turpentine, and slips of it, lighted, supply the place of lamps to the cottagers. They extract a kind of aromatic oil from the berries of the laurel, which is efficacious in the cure of rheumatism and sprains. Another kind of oil is obtained from the pistachio: and the Moreans have more than once in time of famine mixed the ground root of the arum maculatum with their bread. With the rhus cotinus, which the Greeks call chrysoxulon or golden wood, the Moreans dye an orange color: the fruit serves to season their dishes. The agnus castus, which grows on the borders of rivulets, furnishes them with osiers. It may be supposed from the state of agriculture, that farming is at a very low ebb in the Morea; notwithstanding which they very well understand the conducting of water even to the distance of some leagues, though there is still much improvement required in that as well as in other branches of husbandry. The manufacturing interest is not more flourishing: necessity has taught the Moreans to manufacture many articles, such as cotton, leather, felt, and even in some places they fabricate silks, gauzes, stuffs, &c.; but for other merchandise they are dependent on foreign nations. It is to be remarked however that the Moreans, though but indifferent manufacturers, are excellent merchants: they have abolished all the foreign houses in their ports and engrossed the whole of the commerce. 'There is no nation,' says Serofani 'which can be compared with the Greeks for avarice, parsimony, cunning, and activity.'

It is a remarkable circumstance, that the isthmus of Corinth, which anciently served as a link between the Peloponnesus and Great Greece, and contained an opulent city, should have become in 1822, after so many ages of nothingness, a rallying point for the free Greeks and the seat of their government until the city of Minerva shall be in a condition to receive it. In the foundations of the ramparts and bastions which surround the acropolis, may be perceived ancient layers of stone of Pelasgian or Cyclopean workmanship. The fountain of Pyrenus issues from the foot of the mountain, on which the

citadel stands; and, farther on, is the fountain of Lerna; which rushes from the rock, and swelling in a rivulet, after having watered Corinth, empties itself into the gulf of that name. Fragments of the fluted columns of the ancient temple of Minerva are remaining; and other vestiges may still be seen on the declivity of the mountain.

At a short distance from the town there are seven fluted columns standing, which still support a part of their ancient architraves, and which the inhabitants of the country suppose are the remains of the temple of the Sun. Judging by the descriptions of Strabo and Pausanias we may also recognise the foundations of the theatre and gymnasium; but of the famous temple of the Melanean Venus no traces are to be found, and from the present melancholy aspect of Corinth no one would suppose it to have deserved the name of the 'city of pleasures.' Its ancient port of Lechæum, on the gulf, still contains some small buildings and a custom-house; but this tract of land is become an unwholesome marsh, impregnated with saltpetre. Cenchrea, now Hachries, another port of Corinth at the mouth of the Helicon, is almost a desert. Mosques and a few Greek churches, among which the cathedral is distinguished, have succeeded the ancient temples: and since 1821, probably, the minarets no longer announce the supremacy of the Mussulman worship in this bulwark of Greece. The archbishopric of Corinth boasts of being more ancient than even that of Rome. Besides the churches, a caravansera and a post house were the only public establishments here in 1821. With regard to military affairs, Corinth is important for the defence of the Peloponnesus against the attacks of land armies; though, from its being situated between two gulfs, an army may easily approach and quickly disembark, especially on the side near the isle of Ægina. Corinth has never been celebrated for the fertility of its soil; scarcely any trees are to be seen, except small pines, and cypresses; only a few of the gardens are adorned with citron and orange trees; and, after the harvest, the chalky lands, burnt up by the sun, present the very picture of sterility.

The villages of the isthmus are now comprised under the general name of Dervena Choria, and have a population amounting to 10,430 inhabitants: Corinth itself contains about 360 houses. Two roads diverge from the town, one, turning towards the east, leads to Megara; the other westward to Sicyone.

On the road to Megara we pass through Examili, a village divided into high and low, and inhabited by Greeks and Albanians: in this place is found an astonishing quantity of ancient coins, which the women wear as ornaments; and near the village are the remains of a temple and a theatre, fragments of marble and granite, and pieces of antique pottery. From the number of pines found here, it has been conjectured that in this place the Isthmian games were celebrated.

The passage of Mount Æneus was not, until lately, free from danger, and various recollections contributed to sadden the traveller. The torrent of the Massacre, which is to be passed, issues from a ravine shaded with rose laurels, pines, maples, and other trees; it was here that in 1779 a troop of Albanians were murdered. The ascent of Caki-scala leads to the summit of the torrent, which commands a fine view of the neighbouring country and sea.

Towards Megara the coast is guarded by the Scironian rocks. The fertile country around is inhabited by Albanians, who, taking advantage of the partial liberty granted them by the Turks, have secured to themselves a lucrative trade in oil of turpentine, butter, wax, and honey. Megara, which was built on three hills, has lost its monuments, owing partly to the decomposition of the stones composing them: the more ancient foundations, which are still to be seen on one of the hills, being of the primitive rock of Mount Gerania, have been more lasting, and appear to be of cyclopean construction. Megara is only a borough, inhabited by about 1400 Greeks and Albanians, having an episcopal see. The houses are pretty well built, and on the declivity there is a road from this place to Thebes, through the defiles of the Ceralian mountains.

Returning to Corinth, we find a road, which leads along the gulf in a westerly direction to Sicyone, which district is bounded by the rivers Nemeus and Sysais, the most fertile part of the present Corinthia: the Schypetars, who inhabit it, cultivate olives, vines, and cotton, and feed cattle, goats, and poultry; their wives spin the cotton, and show much order and neatness in their houses.

The ancient Sicyon is reduced to a borough: its ruins are found near the mouth of the Asopus, where it is easy to recognise the Greek and Roman acropoles; but the temples, and the wood of the Eumenides, have disappeared. The present village is called Vasilika; it is situated in a deep ravine, through which runs a spring called by the Greeks the Dropping Fountain, because it is supplied by drops falling from the roof of a cave. Sicyone, peopled by the Dorians, early distinguished itself by its love of peace, and the culture of the fine arts: dancing, music, tragedy, and the art of moulding in brass, were carried to great perfection in this Dorian colony; even the women possessed cultivated minds: but the assertions of the ancients are the only proofs of the former prosperity of Sicyone. The very small province of Phliasia, remarkable for its wines, is inhabited by Greeks, who are, perhaps, descended from the ancient Dorians, without any mixture of other nations. On a hill near the Asopus are the ruins of a town, which may have been Phlius.

Argos, the kingdom of Agamemnon, has shared the fate of the other states of Greece; and, in later times, a pacha with two tails governed this formerly independent province. Many historical recollections are awakened here, by every town, river, and mountain: ruins abound in this province, partaking rather of the indestructible solidity of the Egyptian monuments, than of the light and graceful character of the Grecian architecture. Some of these ruins probably equal in antiquity the pyramids on the banks of the Nile, and belong to the style called Cyclo-

pean, indicating the gigantic stature and strength of the people who raised them. Instead, however, of cyclops and descendants of the ancients, there are now scarcely any inhabitants in Argos but Schypetars.

Passing through that mountainous district, which is bathed on one side by the gulf of Argos, and on the other by the sea of Saronica, we arrive at Nauplie. At the bottom of the gulf of Argos, now the gulf of Napoli di Romania, we find a town, which under the Venetian government was the capital of the Morea; the port is still the depôt of the productions of the Grecian continent and islands. To this place Samos sends its sponge, Laconia its silks, Mitylene its excellent oils, and other parts of Greece their wines, acorns, and vermillion: ancient medals of various sorts are also found here. It does not appear that any modern traveller has explored the catacombs, or the subterraneous labyrinth, which, according to Strabo, lie between Nauplie and the city of Argos. The acropolis of Nauplie, still bearing the name of the hero Palamedes, is yet visible; but the most remarkable remains of antiquity here are the ruins of Tyrinthia, at the distance of half a league from the town. The walls of Tyrinthia are mentioned in the Iliad as existing long before the Trojan war; nor have thirty centuries been able to destroy them; travellers who have examined these masses of stones laid one upon another without cement, think that they may still remain as many more. Amongst other peculiarities, the use of the ogive is observed here, which proves that this kind of arch is of great antiquity, although it was seldom much employed till the middle ages.

In going from Tyrinthia to the ancient Argos, the Inachus must be crossed: the bed of this river during a part of the year is dry, but at other times almost the whole plain of Argos is inundated. The ruins of the acropolis are in the same cyclopean style as those of Tyrinthia, at least in the foundations; for the rest is modern, and composed partly of a collection of more ancient ruins. Many classic writers mention the cyclopean walls of Argos, which, from their great solidity, the inhabitants of Mycenæ were not able to demolish. Few remains of the buildings of this city are to be found, except the plan of the theatre, south-east of the acropolis: it is cut in a rock, and had apparently two wings, which is not the case with other Grecian theatres. A chapel, situated near this theatre, appears to have taken the place of the Hieron of Venus, in which the inhabitants erected a statue to Telesilla, a woman distinguished equally for her poetic genius, and her valor, displayed against the Lacedemonians, in their attack upon Argos. On a rock, to the north-east of the ancient citadel, is a monastery, probably built upon the ruins of the temple of Apollo Diradiotes; and we are assured, that this rock encloses a cavern, which was formerly used for oracles. of which Argos had several. Modern travellers have discovered near the acropolis, on the site of the sanctuary of an ancient temple, a subterraneous passage, which led to the altar, and in which the impostor, who made the oracle speak, probably hid himself: every word pronounced there is reverberated by the rocks in an astonishing manner. How many have been dupes to this cheat, and how many hopes and fears has it excited, while the priests of Argos have laughed at the credulity of the people! Within the walls of a large church, at the southern extremity of the town, are the fragments of some columns of the Ionic order; and one of the mosques of Argos is said to be built with the remains of the grotto of Esculapius in Epidaurus.

The province of Argos is inhabited by Schypetars to the number of 8000 or 10,000, who employ themselves mostly in agriculture, in the fine plains watered by the Inachus; their houses are very neat, and their women, if not equal to the ancient Argians in beauty, may at least pass for their descendants.

Two leagues further north are the ruins of another celebrated city, Mycenæ, which five centuries before the Christian era, was reduced to its present state of dilapidation by the Argians, who were jealous of the glory its inhabitants had acquired in an engagement with the Spartans at Thermopylæ. An acropolis, surrounded by cyclopean walls, rises amidst the unformed ruins. The entrance to the ancient citadel is still plainly seen; and is composed of enormous blocks of stone, upon which are others lying one against another, and forming a kind of rude arch, finished with a stone, on which are cut two lions or panthers standing against a pillar; similar to the animal figures used in modern heraldry. Sculpture of this kind and of this antiquity is surely one of the most curious objects among the ruins of Greece: it is nine feet in height, and more than eleven in width at its base: the gate over which it is placed is mentioned by Sophocles and Pausanias.

On the outside of the acropolis is a tumulus, something resembling the hypogæa of Egypt; some old steps lead to the entrance gate of this massy structure. On the top of this entrance, which widens as it advances, is an enormous lintel, composed of a single bræchia stone, twenty-seven feet in length, seventeen in width and about four and a half in thickness, being perhaps one of the largest ever employed in an edifice. In the interior of the building is a room terminating in a point like that in the second pyramid of Egypt, from which we pass into a smaller apartment, where we find over the entrance a kind of ogive like that over the citadel. This monument has been called the treasury of Atrea, from a supposition that the ancient Grecian kings were accustomed to deposit their treasures in such buildings: some learned persons, however, believe it to have been a tomb; and there are others who think that it was a place for mystical worship.

The tombs of Ægisthus and Clytemnestra have not yet been found. M. de Chateaubriand imagined he had discovered them; but what he took for Grecian tombs are those of a Mussulman and his servant, who were murdered there thirty years ago.

A little further to the north, through the woody defile of Treta, we arrive at the ancient city of Nemea, of which the hamlet of Colone, so

named from some columns of a temple of Jupiter, is all that remains, and a few solitary trees in the neighbourhood indicate the site of the forest which formerly covered the country: here the celebrated games were solemnised, and the inhabitants still assemble annually on the 15th of August, to celebrate the festival of the Virgin, near a ruined church under a very old wild pear-tree.

Following the course of the Nemean river, through the plain of Coutzomati, we enter the canton of St. George, which belongs to Counthia, and is justly celebrated for its vineyards. The lion subdued by Hercules is supposed to have had its den near Nemea. In the way from Argos to Epidaurus we pass near a hill on which are the ruins of Lessa, on the borders of the territory of Argos; and all along the road are to be seen tombs of great antiquity, composed of rough stone; there is one in the shape of a pyramid, like the Egyptian tombs.

Cotton, corn, mulberry, and pomegranate trees and myrtles, cover the beautiful plains and valleys. On the way, and near the sea, are fine woods of olive trees. Epidaurus, the chief city of this province, which now belongs to Corinth, was situated in sight of the isle of Ægina, and has been succeeded by the maritime town of Epiada. The temple of Esculapius was situated in a place now called Ligoris, and adorned with myrtles, Indian fig-trees, and other shrubs. The temple of the god of health is no longer standing, but the plan is still visible. The ancient Trezenia and Hermionides form the extremity of a peninsula, and are badly peopled, uncultivated, and unhealthy. Methone still exists under the name of Methana, but it is merely a village like most of the other cities of ancient Greece. At Hermione, now called Thermis, the girls no longer, as in the golden days of Greece, consecrate their hair to Venus at the time of their marriage; and the sacred wood is no longer preserved in honor of the Graces. Quantities of the shells used in the manufacture of purple, which formerly rendered this town famous, are still to be seen; but Hermione is now only known in commerce by the fine sponge found on its coasts. The ancient Calauria, now known by the name of Poros, is inhabited by Albanians.

The Cymeria of the ancients, now Saint Pierre, a province which reaches to the mountains of Laconia and Arcadia, is on the other side of the gulf of Argos. The inhabitants feed a number of sheep on their mountains, part of the wool is exported, and the remainder is manufactured into felt and carpets; they likewise make annually 5000 quintals of cheese, and 3000 barrels of olive oil; also some silk and vermillion. Before the insurrection of 1821 they were accustomed to repair to Constantinople, in order to sell butter, and, after enriching themselves at the expense of Christians and Mussulmans, they returned to their mountains, and laid out their money in ammunition from the neighbouring islands of Hydra and Spezzia. In the summer the inhabitants of the coast visit these mountains in order to escape the damp and unhealthy vapors prevalent near the sea at the equinoxes.

The town of Saint Pierre seems to have succeeded the ancient Thyræa; and the towns of Prasto and Saint Reontas, which form the see of an archbishop, point out the site of the maritime town of Prasica: since the last century a new town, called Neoprasto has been built at a short distance from the two preceding ones. The temple of Diana appears also to have given place to the chapel of Notre Dame de Carga, where the mountaineers perform their devotions with the same zeal as their ancestors. The Tzaconic dialect, a kind of gibberish, in which some remains of the ancient Doric have been discovered, is spoken here. A few centuries since, the language of the Tzaconians, that is of the district comprising the towns of Prasto, Kastanitza, and Satina, was not understood by the other Greeks; but commerce, by increasing the communication among the different states, is gradually abolishing this particular language, and, as it has perhaps never been written, no traces of it will probably be left.

Achaia, the northern extremity of the Peloponnesus, is as poor and unfruitful as in ancient times, although it possesses one of the principal cities of the peninsula, that of Patras, a maritime city built at the foot of Mount Panachaïkos. This place has always preserved the importance which it owes to its situation, being with Lepanto the key of the Corinthian Gulf; the walls, of which ruins are still to be seen, formerly reached to the sea, but the present town, falling far short of the ancient in beauty, is situated at the distance of a mile from the coast. In the modern fortress, itself become a ruin, are the remains of the acropolis, where, in a niche, is a mutilated statue apparently of Diana; this goddess being venerated at Patras, on account of the chase in the forests of Panachaïkos, now infested with lynxes and other wild animals. Bacchus shared with Diana the homage of the Patracians, and justly, for the vines here are still magnificent, the foliage very thick, and the grapes of a considerable size. These vines cover a valley crossed by a Roman aqueduct on two rows of arches, which furnishes water to a fountain supplying the citadel. There is another fountain, or rather covered pit, near the ancient port, and the ruins of the church of Saint André, erected, as is supposed, on the site of the temple of Ceres. This fountain was applied to in the time of Pausanias by invalids: the present inhabitants, more cautious than their ancestors, draw water here on Saint Andrew's day as a preventive of evil. Saint Andrew is the patron of the Patreans, and these have made vain efforts to obtain permission from the Turks, for the rebuilding of his church, which was demolished by the Albanians in 1770. On the day of his festival, the Greeks crowd to the ruins, worship the sarcophagus, which contained his bones, and devoutly drink the water of the pit consecrated to him; small wax tapers are lighted each night upon his tomb.

Near the temple of Ceres was formerly a sacred wood, used as a promenade for the inhabitants: it is succeeded by the vines of Calamogdarti, where have been found some relics. The ruins of two piers, and the bases of two towers, are all that remain of the port which was an

ciently decorated with temples and statues: its waters are stagnant, and produce fevers. A badly screened bay receives the ships, which load principally with Corinthian raisins, for which production there are magazines near the custom-house, also store-houses for fish and salt provisions. The bazaar of St. George appears to be on the site of the ancient market; and according to M. Pongueville, who caused this land to be cleared, the garden of the French consul still contains the Mosaic which served as a pavement to the temple of Bacchus Esymnetus. This gentleman thinks that researches in the bazaar would bring to light other antiquities.

The present Patras will transmit scarcely any monuments to posterity: streets badly paved, dirty, narrow, and in some places shaded by roofs of ivy; houses built on ground dried by the sun, small churches, and mosques, are all that compose a city which passes for one of the first ports of the Levant, and which contains 16,000 inhabitants, three parts of whom are Greeks. This town possesses natural advantages which, under a free government, might render it one of the first cities in Greece and the Levant: under that of the Turks the safety of the inhabitants was threatened at the gates. So common were assaults in the road which passes through the woods of mount Panachaïkos into Arcadia, that it was abandoned and stigmatised by the name of 'the road of murders;' it is more safe to go to Arcadia by sea. Besides vines, the neighbourhood of Patras is planted with mulberry and fig-trees, myrtles and mastichs: hysop, stocks, and other flowers, enamel the shore. Notwithstanding the beauty of the situation, we rarely find in Patras that hardy and robust race which formerly peopled Achaia: those born in Patras are generally afflicted with rickets, perhaps owing to the want of cleanliness and proper diet. More negroes are found here than in other Grecian cities; they generally succeed in obtaining their liberty, and establishing themselves, and then become exceedingly arrogant.

In ancient times Patras was the chief place of only a small district, which was increased by the Romans: at present it extends from the Larissus to Meganitas, and comprises ninety-five villages with a population of 10,700 souls. To the south-east of Patras, after crossing the river Melas at Camenitza, are found the ruins of the ancient city of Phares, on which the Christians have built a chapel to St. John. The small village of Cato-Achaia, which contains all the population of this district, abounds in mulberry, almond, and fig trees: rivers, fields of maize, wheat, and cotton, form, together with a forest of oaks, the resources of the modern Phareans. The greatest number of relics in this district are to be seen near the village of Chalanthistra, which some centuries ago had an archbishopric and several churches; and which probably stood on the site of the ancient Tritea: thus this city has fallen twice. In the mountains of Craca stands the richly endowed monastery of St. Michael the archangel, which maintains about eighty monks, and up to the present time is one of the largest convents in Greece.

The ancient Ægeum, built on a promontory, has lost its splendor, and the small town of Tostitza, which has replaced it, has experienced too many calamities to admit of its attaining to prosperity: there are some remains of this town and a fountain formerly dedicated to the goddess of health. The inhabitants of this district are exposed to earthquakes, a variable climate, and a violent wind, which blows from Marrichiotis; and, what is still worse, they are the vassals of some Turkish families, to whom this province was given on the conquest of Achaia. They console themselves, however, by the abundant fishery of their gulf, by the fertility of their soil, and by that resignation which makes us endure an evil that we know cannot be remedied. At the ancient Bura, near Tostitza, Hercules delivered oracles in a grotto, which is still seen: it is opposite Delphos, which may be seen on the other side of the gulf of Lepanto. The Greek priests have never been able to impart to the oracle of Bura the reputation which was attached to that of Apollo: they pretend that the monks of Negaspelion have deprived them of their tithes. The ancient Pellenia, whose barren soil is covered with pines which exhale an aromatic odor, is now inhabited by Albanians: they make in their woods pitch and oil of turpentine.

With the name of Arcadia we naturally associate the idea of the golden age, and the Arcadian shepherds. Their country, which occupies the middle of the peninsula, is an elevated plain overlooked by mountains, from which rivers flow in all directions and water the provinces inclining toward the sea: the principal of these are the Alpheus, the Erimanthus, the Eurotas, and the Inachus. Fountains of water gushing from all parts of the plain impart to the air a delightful freshness; the forests which clothe the sides of the mountains, and which must formerly have been larger and thicker; charming pastures; a soil abundantly fruitful; mountains sheltering the inhabitants from invasion; a poverty, which, though not amounting to indigence, served to discourage the greedy conqueror; liberty, without which all other enjoyments are unstable; and a simple and frugal life undisturbed by violent passions; in these advantages consisted the happiness of the ancient Arcadians: they enjoyed that felicity which poor, weak, and free nations seem alone destined to enjoy. But in proportion as the population around Arcadia increased, the inhabitants felt the influence of foreign manners: their simple worship was loaded with the pomps of superstition; the priests subdued the spirit of the people; ambition and jealousy excited civil feuds; proud of their own liberty they filled their country with slaves; the shepherds forsook their mountains and shed their blood in the contests of the neighbouring states, indifferent as to which side they took in those quarrels which ended by desolating the once happy Achaia. Under the Turks they preserved a kind of liberty, at least in their mountains, but it was not that of their ancestors. It is a singular circumstance that many of the Arcadian rivers, after having inundated the country and formed lakes, hollow for themselves subterraneous passages, disappear for a considerable distance, and are then found in other parts: when the canals

by which the rivers disappear are obstructed, the neighbouring villages are threatened with deluges similar to those which ruined the towns of the ancient Arcadia.

Butter, cheese, and wool, are the chief articles of exportation: agriculture might have added other riches, had it been encouraged and protected under the reign of the Turks. Sufficient domestic tranquillity, however, remains in the mountains to preserve the primitive beauty of the Arcadians: a tall figure, expressive features, a regular profile, and flaxen hair, even now distinguish the fair sex.

More than 300 villages contain the population of the four cantons of this province, which are named after their chief towns. Tripolitza, which before 1821 was the residence of the pacha, and in some manner the capital of the peninsula, appears to have been built with the ruins of the cities of Tegea and Mantinea, which were situated in the neighbourhood and were formerly rivals in power. The city of Tripolitza is situated in a fertile, and well-cultivated valley, to the east of mount Menalus, now Roïno. It is surrounded by walls and crowned with a citadel, where, since 1821, the Greek flag waves over a free people. The pacha, enclosed in his seraglio, paid little attention to embellishing his residence; and Tripolitza, except in the principal street, which crosses the whole town, presents no other appearance than that of most Turkish cities. A market, shaded by large plantains, occupies the centre of the town; and four mosques, ornamented with ancient columns and bas-reliefs, serve for the worship of Mahomet: a caravansera, shut in the evening like a prison, with iron gates and chains, is provided for the reception of travellers. The plain of Arcadia, exposed to the heat of the sun in summer, and covered with snow in winter, with bad water and few trees, presents the most melancholy spectacle in this beautiful country; but its soil, if properly cultivated, is capable of furnishing pasture for cattle and of producing grain, wool, vermilion, and cheese, sufficient for exportation. About seventy-five villages belong to this canton, which has its archbishop residing in the chief town. A few remains, in a place now called Palæo-Episcopi, point out the site of Tegea, within a league of Tripolitza: some stumps of columns, and fragments of capitals, in which are seen the three different orders of architecture, lie on the ground.

Mantinea has been still less spared by time than Tegea. A marsh covers the spot where Epaminondas vanquished the Lacedemonians, and terminated his glorious career; and no traces remain of the monument erected to his memory; but the remembrance of the hero still inspires his descendants in their struggles with their oppressors, and the territory of Mantinea and Tegea has been freed by their valor. In the mountainous canton of Leontaris, or Londari, there are not twenty villages: the inhabitants lead a pastoral life; their lands producing grain and cheese barely sufficient for their own consumption. The borough of Londaris, probably on the site of one of the three ancient cities, bearing the name of Leuctra, occupies the centre of a tolerably fertile and healthy valley.

Perhaps the finest monument of Arcadia is the ruined temple of the Epicurean Apollo, on mount Cotyla, near the ancient Phigalia, now Paolizza; it was erected after the famous plague, to Apollo the saviour, under the direction of Jotinus, the Parthenian architect. With the exception of two only, the thirty columns of the Dorian order, which adorned the portico of the building, were still standing in 1812, and some fragments of bas relief, found amongst the rubbish, are now in the British Museum. But the most valuable remains found here are twenty-three marble tablets, with figures in bas relief, representing the two combats of the Centaurs and Lapithæ, and the Amazons and Greeks.

Caritene is the chief town of a well-peopled district, containing 230 villages, and watered by the river Alpheus and its tributary streams. In this country, under a more liberal government, tobacco, grain, vegetables, fruits, silks, and wines, might be cultivated so as to produce an extensive commerce. Neglected as agriculture is, it yet exports wool and cheese.

All the north of Arcadia is comprised in the canton of Calavista, interesting for its picturesque views and its remains of antiquity. Besides the productions common to the before mentioned districts, it has an abundance of Corinthian grapes, and gum adraganth. In the mountains there are some considerable monasteries. Calavista, the chief town, is of little importance: it is situated in an elevated valley, watered by the Cerynitus, the inundations of which render the ground marshy, and the air unhealthy; while the neighbourhood of the mountains experiences violent winds and severe cold. The town, in latter times containing 2500 Greeks and 300 Turks, dates its foundation only from the middle ages, though there is on a mountain near the city an ancient ruined fortress: this post has long ceased to protect the country, and a range of mountains, some leagues from Calavista, bears the dreadful name of the defile of the massacre, on account of the numerous murders committed there. The icy summit of mount Olenos overlooks this wild country.

The monastery of Mega Spelion, situated three or four leagues to the north of Calavista, is one of the largest in Greece; in the road to it is the village of Kerpeni, which, enjoying a finer climate than that of Calavista, draws away its inhabitants. On an isolated rock, at some distance from this village, are some ruins, called in the country Old Calavista: they are probably those of the ancient Cynetha, whose inhabitants had the reputation of being thieves and highwaymen; a character which has been bequeathed to the neighbouring village of Suthera. The monastery of Mega Spelion is half buried in a high rock, and shows on the outside scarcely any thing but its front; the entrance, which runs through a dark arch, is shut by an iron portcullis, having on the two sides a great number of loop holes. The monks are defended almost entirely by nature from the attacks of their enemies. The Arnaoutes, not being able to get possession of the monastery, once climbed the rock which rises perpendicularly behind the cavern, and rolled down masses of stone; these, however,

fell over the cavern and did no harm to those within. The monks allow no one to enter of whom they have any suspicion: when Mr. Dodwell visited the monastery they were ranged on each side of the entrance; and he afterwards learned that they concealed poniards under their ample robes. There are in Bœotia monasteries to which the only way of admission is by a basket, drawn up with a pulley. By such precautions as these weak men lead peaceful lives in the midst of barbarous countries. This convent is supposed to be very rich, and has large farms and vineyards of Corinthian grapes; the monks, however, exercise hospitality to those who come here to worship a rough image of the Virgin, preserved in their chapel, and which they pretend is the work of St. Luke. The small chapel is ornamented with Mosaic work, gilding, images of saints, and lamps of silver and ex-voto; it receives but a feeble light from without, and the kitchen receives none, being a subterraneous cave. The library of the convent has been twice burned, and now contains only homilies and legends. Their cellar contains perhaps the largest tuns that monks ever possessed, excepting indeed the German monks, and these are filled with excellent wine, the produce of their own vineyards. The lay brethren direct the domestic affairs. Notwithstanding their good wine, the monks feel the dampness of the cave, and are afflicted with rheumatism. Their usual walk is to the burying-ground, situated on an eminence, surrounding a chapel and shaded with cypress.

The convent of Taxiarchi is near the last mentioned, and in the neighbourhood is the cascade of the Styx, not far from the village of Vounari. It is a rivulet formed by two springs, which, rising at a short distance from each other, unite and fall into an abyss, where they disappear with the waters of another river, which issues from a grotto. But not far from here, in the plain, is a clear rivulet, which is most probably fed by the subterraneous reservoir that has engulphed the two springs.

Some ruins, found in a plain watered by the Erymanthus, are supposed to be the remains of the ancient Psophis; and on a neighbouring height are the ruins of an acropolis, which might belong to the city of Phegea, whence the inhabitants went to build Psophis in the plain. No traces remain of the canal which they dug to prevent inundations, but there are still some of the ancient Raos, and of another town near the village of Scoupi.

Elis, the theatre of the Olympic games, next engages our attention, but the revolution of time has spared but few traces of the ancient splendor of its towns. Elis forms a maritime province of twenty leagues in extent, watered by the rivers Peneus, Alpheus, and Meda, and divided by mount Pholoé and other mountains from Arcadia. The Alpheus has lost even its poetical name, and is now called the Rouphia; Olympia and Elis are uninhabited, and the modern towns of Gastonni, Pyrgos, and Lala, contain all the civilisation of the province. The Schypetars, laborious agriculturists, have established themselves on the ruins of the magnificent cities of antiquity, for which they care no more than the Turks. The cape Fornese, which is the most prominent part of Elis on the west, received its modern name from a castle now dilapidated. The city of Cyllena is now only a village, under the name of Andravida: some ruins round this place show that there has been a town, and the style of the churches proves that it existed in the middle ages. The Penea of Elis now falls into the sea, near cape Fornese, under the name of the Gastonni River. The town of Gastonni might have remained as a monument of what the Turks could have effected every where if they would; but already since the revolution it presents the melancholy aspect of a declining city: at the time of M. Pongueville's visit, it contained from 1200 to 1500 inhabitants, with a ghastly complexion, living in houses built solely of mud.

Following the course of the Peneus we meet with the ruins of Elis, which the shepherds call the Palæopole, or ancient city; the site of the citadel may be recognised, and other remains would, by investigation, most probably be found. The ruins of this city cover the space of half a league; those of Pylos are less considerable. Near the cape anciently called Pheïa is a monastery bearing the name of the neighbouring village, Ranagia Scophidia: the villagers are scarcely more industrious than the monks. In the town of Pyrgos, near the Alpheus, is found the greatest proportion of prosperity and industry: this town, regarded as the finest in the Morea, is the chief place of a small canton, inhabited by 1700 Greek families, who, having been less molested by the Turks than those of other parts of the Peloponnesus, are very successful in their agricultural affairs. Their town, seated on an eminence, is the see of a bishop; on the hill are some ancient sepulchral monuments. A few leagues from Pyrgos is the modern village of Miraka, in the neighbourhood of which a few ruins point out the site of Olympia, without showing its magnificence. From the nature of the antiquities which are frequently found, it seems probable that the demolition of Olympia was effected, not so much by the hands of barbarians, or by the slow operation of time, as by one of those earthquakes so frequent in the west of the Peloponnesus. Mr. Dodwell thought he had been fortunate enough to discover the ruins of the temple of Jupiter. He found the stumps of some columns of the Doric order and fluted, which, judging from their diameter, must have surpassed in height those of the Parthenon and the temple of Olympus at Athens. The famous hippodrome, or area for chariot racing, is still to be seen; but the present inhabitants instead of rejoicing, are employed in wresting their country from the hands of barbarous oppressors. The stade, or foot race-ground, is near the hippodrome, and is being gradually wasted by the waters of the Alpheus. The new monuments, built in this city by the emperor Adrian, have not better resisted the attacks of time than those of older date. Near this place are some other ruins, probably those of the ancient Pisa; the windings of a branch of the Alpheus whose waves are yellowish like those of the Tiber; mountains crowned with the fine verdure

of pines and oaks; meadows watered with clear rivulets, and shaded with myrtles and other odoriferous shrubs, or adorned with wild roses and other field flowers; compose a landscape worthy of surrounding a fine city.

The river Erymanthus descends from heights covered with snow, and, rolling its limpid waters through a fine valley, joins the Alpheus, with which it enters the sea. Unfortunately, clouds of musquitos drive the traveller from the enchanting borders of the two rivers issuing from Arcadia. In the village of Agolinitza the inhabitants, in hot weather, sleep in the open air, under little tents well closed, in order to be cool, without being incommoded by the musquitos.

The aspect of the village of Lala offers a sad contrast to the delightful country around it: it is an abode of Schypetar robbers, who are continually at war with the peaceable inhabitants, and amongst themselves: they have not, however, neglected to cultivate the land. Lala is one of the most salubrious spots in the Peloponnesus, which appears from the healthy, robust, and proud air of the Laliots. These rustics would let no Christian stranger approach their village: perhaps the fall of the Turkish power in the peninsula has a little abated their brutal arrogance. Their aga resides in a mean dwelling, and is always guarded by men completely armed. The Laliots never quit their arms, of which they bear a great number. Like most barbarous oriental nations they roast sheep entire, and tear them to pieces with their hands in order to eat them.

The ancient Triphylia in the south of Elis, and on the gulf of Cyperissa, now contains no remarkable place; nothing remains of the city of Pylos, unless the ruined acropolis, which is seen near the village of Petrye, may have belonged to it. The country of Lepreum is barren and produces only pines; and Agio Sederio, where there is a bad caravansera, is the only considerable village in this canton.

Messenia was situated to the west of Lacedæmon, on a vast gulf, now called the gulf of Coron. At the bottom of this gulf the Pamisus disembogues, after a short course, during which it waters one of the finest valleys in the Peloponnesus: oranges, olives, and pomegranates, grow in abundance: the sugar-cane and banana also succeed with a little cultivation. Many large plains are covered with a fine harvest, fertile pastures feed a number of cattle, and fishing supplies what more is wanting to the inhabitants. Nothing is wanting to the fine country watered by the Pamisus, but free inhabitants, in order to restore the image of happiness which it must have presented before the invasions of the Spartans. Notwithstanding so many ages of oppression it is still one of the best peopled countries of Greece: it has 350 villages, and more towns and sea-ports than the other provinces of the Peloponnesus. The waters of the Pamisus, formerly noted for their salubrious qualities, now exhale unwholesome effluvia; but the warm and fertile land through which they flow is well cultivated, and the plantations on their banks show the value of the soil. Passing by Nisi Calamata and Androussa, and going direct to Mount Ithome, which M. de Chateaubriand poetically compares to an azure vase placed in the fields of Messenia, we arrive at an ancient enclosure of a citadel, which encircles the mountain like a crown: this enclosure is shut with stones five feet in length placed across: the foundations of the tower which flanked the citadel are still remaining, and likewise a door made of only three stones. In the enclosure is a fountain, as in the acropolis of Corinth. The town which this citadel protected was Messenia, of which there are few remains, and the small village of Marromati gathers its harvest on the site of this ancient capital. Mount Ithome is difficult of ascent, from its great ruggedness; the rocks are covered with mastichs and bushes, and even to the summit the purple flax, the red cressis, and the catananche lutea flourish. At the foot of Ithome are some ruins called the Destroyed Village: it is supposed that the city of Andania occupied this site. Æchalia was situated in the neighbourhood.

The beautiful valley of Stenyclaros is still fertile in grain: it contains about thirty villages, the principal of which is Court Chaoux; they are all dependent on the grand seignior. The chief place is Androussa, on the right bank of the Pamisus: man languishes here, but the vegetation is most rich and the verdure almost constant. Grain, wine, tobacco, figs, olives, &c., abound; and the fine pasturage feeds numerous flocks, the wool of which is exported together with silks, cheeses, and goat-skins. The city is surrounded by olive plantations and tombs shaded by cypresses: it is the see of a bishop, and before 1821 was governed by a Turkish voivode. The canton of Calamata, on the other side of the Pamisus, is equally delightful, abounding in orchards and gardens filled with fruits of all sorts, and meadows and fields in excellent cultivation, where a vast quantity of honey is deposited. The town of Calamata, on the ancient Nedon, near the mouth of the Pamisus, consists of 300 houses, interspersed with gardens, resembling the dwellings of the Maniots; they are like towers, having strong walls pierced with loop-holes, on account of the pirates that formerly infested the neighbourhood. On a hill behind the town we perceive the ruins of a Venetian fortress. Lately the inhabitants were accustomed to choose their own magistrates, and collect their tribute, which they sent to the voivode, who commanded a little garrison of Janissaries. It is at once the principal commercial and manufacturing place in the country; great indolence, however, characterises the inhabitants, and it is the Maniots who labor for them. They weave stuffs something like grograms, barracans, and handkerchiefs, which they sell in the archipelago. Their silk yields commonly for the manufacturing labor 120 per cent. upon the first cost. Silks, oil, tobacco, honey, and goat-skins are the chief exports of Calamata; they were formerly conveyed in French ships, but now Greek vessels are mostly used. Some antiquities near it, as well as its name, make it probable, that it stands on the site of the ancient Calame, which name a neighbouring village still bears. It has a bishopric and about ten villages dependent on it. In this neighbourhood also must

have stood the city of Pharoe and the wood of Chærius. A narrow defile leads from Calamata to Misitra, about eight leagues from the Pamisus; in descending along the western side of the river towards Cape Gallo, formerly Acritas, there are some remains of ancient baths, built of brick covered with stucco, and a country house of the bey of Coron, defended by towers and encircled by a moat with a draw-bridge.

Coron is a port so situated on the gulf as to have all its houses on the sea shore; so that it is seen rising by steps on the declivity of a mountain crowned by the citadel, the ancient acropolis. This is closed by a gate in the form of an ogive, which appears to have been built in the times of the latter empire: the Venetians added some ornaments to it. One of the first houses seen is that belonging to the French consul, the terrace of which advances up to the sea. The 800 Turks who lately lived here, and the little security that vessels found in the port, banished almost all the maritime commerce. Coron is the chief place of more than seventy small villages and hamlets, dispersed amongst woods of olive trees, and the well-watered regions around; containing, however, hardly 4000 souls, it has been so reduced by the vexation of the Ottomans. To withdraw themselves from their despotism, many families have retired to the caves of the mountains, where their flocks and themselves find an asylum, that is seldom molested. Some of these tribes are complete masters of the passes over the mountains.

Near Cape Gallo is the little Island of Venetico, formerly Thiganussa; here is a sepulchral grotto, with some sarcophagi; it is now inhabited. A little to the right we perceive the islands of Cabrera, Verte, and Sapience, included by the ancients under the name of the Ænuses: the latter, having a good anchorage, is situated opposite to the continental port of Madon, from which it is separated by a strait. This port, on the site of the ancient Methone, was inhabited before 1821 only by Turks, who had banished the Greeks, and devoted themselves to commerce. They also cultivated the olive, which forms the true riches of Messenia; woods of these trees, which in some places would be taken for trees of great height, overshadow all the coasts of this province. A fort built on a tongue of land, or rather on a small island, united by a bridge commands the passage between Madon and the island of Sapience. The Turks made this place a market for negroes. Fifty little villages are dependent on this place, which is not more than two leagues distant from another Messenian port, called Navarin. This place has all the appearance of an oriental town; orange trees shade and refresh the courts of the houses, palm trees elevate themselves among the habitations, groves of these trees, as also of olives and planes, and vines suspended on the arge trees adorn the plain; and, to complete the resemblance, the scarcity of water and great heats dry up the verdure at the commencement of spring, and give the soil the appearance of the scorched lands of Africa or Persia. The character of the people is also oriental; by their phlegm, their indolence, their carelessness at the arrival of a stranger, they might be taken for Turks. There is a fountain in the town, probably of antique construction and very solid; and another furnished with a reservoir springs up at the entrance of the town, which besides these has no other water than what is brought by means of an ancient aqueduct extending to a considerable distance, but of which only 100 arches are entire. From these circumstances, and the description of Thucydides, it would seem that this was the site of the ancient Pylos. The town does not contain above 600 Turks, and a Greek suburb of 130 souls; the whole canton, comprising thirty-six villages, cannot number more than 1600 individuals. The bad character of the Turks has discouraged Europeans from building in this district, or engaging in the commerce of tobacco, olive oil, and vermilion. Proceeding across olive plantations by an ancient way, adorned at intervals with fountains, we reach an ancient bridge crossing the Cyparissa, and afterwards pass a cistern where the women are to be seen drawing water in red jugs, of an elegant form and painted after the Etruscan manner. Philathrea, near this cistern, is a little town or village, irregularly built in the midst of a country abounding in fruit trees. The traveller is struck with the singular construction of a church, and the dress of the women is rather remarkable. Red and yellow are the predominating colors, by which it appears probable, that the women have derived their attachment to these two colors from old time, since they recall to our recollection the flammeum of the ancients. They have chemises with large ruffles of these colors intermixed, great veils bordered with red and yellow fringes, and girdles of the same tints.

Following the coast we arrive at the canton of Arcadia, the most southern part of Messenia, and the nearest to Elis; we may say, also, the most populous. It contains more than 100 villages, and the richest productions; its revenue amounts to more than 5,500,000 piastres a year. It produces a great quantity of grain, fruits, dye-stuffs, tobacco, flax, and silk; and exports besides these wood for building, cattle and poultry, goat-skins, wool, cheeses, and its vintage is valued at more than 100,000 small barrels. Its population amounts to about 15,000 souls. In the mountains there is a race of people regarded as truly indigenous, the natives of Soulina; these have never known the Turkish yoke. Arcadia, a town built on the site of the ancient Cyparissa, was, on the contrary, altogether occupied by the Turks. An acropolis overlooks the town, the position of which on the road from Messenia to Elis is of some importance. Thick forests as that of Cocla, and defiles, affording a retreat for bands of robbers, have to the present time rendered travelling very dangerous in this district.

Crossing the barren summits of Taigetus, and the course of the river Eurotas, running at the foot of the chain now called Basili-Potamos, the Royal River, we arrive at Laconia, the country of the ancient Spartans. It is almost environed by mountains; but its coasts are very favorable for commerce and communication with other countries. The Eurotas, after traversing the

interior of the country from north to south, empties itself into the gulf of Kolochina, along which the continent extends on both sides, terminating at the capes Matapan and Malée. The mountains follow the same direction, and branch out towards the same extremities; so that, with the exception of the north, the sea either washes every side of Laconia, or is at a short distance from it. The present inhabitants know better how to appreciate the advantages of their coast, than the ancient Lacedemonians did: on the east they have first the commercial port of Monembasia, the principal place of a mountainous district, in which the inhabitants chiefly subsist by agriculture and their flocks. The name is a corruption of embasia, that is, in the plain; the Italians called it Napoli di Malvisia, of which the French made Malvoisie, and the English, Malmsey. It stands upon an island, and has an archbishop, on whom six suffragan dioceses are dependent; he does not assume, as was customary in the times of the latter empire, the title of panagiosini, or all holiness. On the bay there are some ruins, consisting of walls in blocks of granite, of cyclopean construction, and consequently very ancient, some fragments of vaults, excavations, &c. A citadel probably occupied this place; it is thought, it was that of Epidaurus-Limera, and that the neighbourhood was what the ancients called Minoa. The native inhabitants call these ruins Palæo-Embasia, that is the old Embasia. Other ruins are scattered near the shore, and in the caverns and ancient quarries, by which the rocks are excavated; some families of shepherds have fixed their residence among them, to shelter themselves from pirates and robbers. Some of these subterraneous abodes are very difficult of access; others have their entrance half open, and a little door leads to the interior, whither the flocks retire with the shepherds during the night, and in times of danger. Sometimes enormous dogs are the guardians of these troglodytes, whom you may see in the morning in their cotton coats, bound by a leathern girdle, as shepherds are represented on ancient monuments, conducting their flocks over the mountains. Those who live in the lofty regions, where the air is inclement, muffle themselves up, as the Walack shepherds of Mount Pindus do. Some of the shepherds on the coast often change their abode, establishing themselves in the first cavern they meet with, and having often no other water than what drips through the rock. The canton of Monembasie is said to contain fifty-four boroughs and villages; it extends to the south as far as Cape Malée, but there is no remarkable place in it; hills covered with evergreen oaks, and wild olives, follow the direction of the coast.

Adjoining the above district is that of Mistra, the ancient Sparta. It is the valley of Eurotas, bordered by two chains of mountains and capable of the finest cultivation, while the mountains afford food for numerous flocks. Silk is here an article of considerable export, especially to France. The olives on the banks of the Eurotas yield 20,000 barrels of oil in a year; grain is produced equal to the consumption of the country, as well as a great quantity of honey and wax, vermilion and gall-nuts. It consists of more than 100 villages, with an archbishop and five suffragans. Mistra, or Maestra, is at present a town of about 7000 souls. The houses, built of wood, are of one story, and the streets are not paved. There is a church, an hospital, and even a synagogue. Some think it stands on the site of ancient Sparta, but others that this is to be found at Palæo-Chori, or old town, where there is nothing to be seen but a cottage surrounded by trees, with a few ruins. The archbishop bears, it is true, the title of archbishop of Lacedæmon, and this town has still its ephori, but it is very doubtful indeed if Sparta was situated here. It is most astonishing, that a republic which filled the world with its renown should have left no trace by which the precise seat of its government can be ascertained. The want of great cities almost gives to Laconia that rustic appearance which it had in the earliest times. A miserable village, Slavochori, is said to occupy the situation of the city of Amyclea, the temple of which was counted one of the most beautiful in the Peloponnesus. Some basso relievos, that are found suspended in the little church of the village, appear to have come from the ancient temple; they represent articles of a woman's toilet, such as jewels, paint boxes, combs, slippers, &c., supposed to be votive tablets presented by the women. The little district of Bardouria, on the left of the Eurotas, is inhabited by Ezerite Albanians from Macedonia, who have founded there a little republic or anarchy, as some other Schypetars have done in the district of Lala. It is the see of a bishop, and the inhabitants subsist by the cultivation of olive plantations, when they are not at war, or making predatory excursions. From this place as far as Cape Malée we may suppose ourselves in the ancient republic of Lacedemon. Not long since, travellers ran the risk of being plundered if they ventured thither, and scarcely ever did a foreign vessel show itself on the inhospitable coast east of the gulf of Kolochina.

Disembarking on the western coast we enter the province of Máina or the Magne, the country of those celebrated Maïniotes who form a distinct nation in the midst of Greece, and, what is more, a mighty and formidable people. It consists of an assemblage of petty chiefs, who have their vassals, live intrenched in their strong forts, contend with the power that would oppress them, and make little wars among themselves, when they have no enemies without to fear; they are moreover barbarous, brave, daring, and even hospitable, when a stranger furnished with recommendations places himself in their hands, or purchases their protection and assistance. These chiefs or captains live in isolated towers in the midst of their lands, built in a very massive style, having only one low and narrow door, and no windows on the ground floor, which is in fact only a cellar; the only openings in the lower parts being loop-holes made for the defence of the building; the family live in the upper story as in an observatory, with only small windows furnished with iron bars. Sometimes, within the precincts of the walls, a court extends round this little fort. We abridge the description given of

one of these fastnesses by Mr. Morritt, who travelled through the country under the protection of the captains. 'The house of this captain,' says Mr. Morritt, 'consisted of two stone towers, very much like those on the borders of England and Scotland, with a range of offices and lodgings for the servants, stables and coach houses built on the sides of a court by a door in an arcade flanked with bastions. An armed man came to meet us, and spoke to our guide, who had conducted us from Myla. He went in again and told the chief, who ran to the door to receive us, accompanied by a numerous suit, all surprised at the appearance of the English strangers. We were received with great kindness, and led to a commodious room in the principal apartment of the tower, inhabited by the chief himself, the other being the residence of his niece, who bore the title of capitaness. Zanetachi Koutouphari was a man of a respectable figure, about fifty-six years old; he had a wife and four daughters, two of them under age, occupying the floor below ours. The old chief had dined early, but, according to the rites of hospitality peculiar to this country, he sat down near us to partake our repast; his wife and daughters waiting on us with much etiquette for some time notwithstanding our remonstrances, and afterwards retiring, leaving an old servant to attend us. In the evening feather beds and mattresses were brought and spread on the floor; then sheets and pillows bordered and made of broad bands of muslin and silk of various colors, all the manufacture of the females. As the Greeks always lie in their under clothes, this sort of bed is not found inconvenient. The next day being Easter Sunday, we had an opportunity of witnessing and partaking in the general rejoicings that took place not only in the castle but in the villages round. In every house, at this season, a lamb is killed, and every one gives himself up to joy. We dined with our host and his family at half past eleven in the morning, and afterwards had a solemn audience with his niece Helen in her own apartments. She was, in fact, mistress of the castle and of the surrounding district, which she received in inheritance from her father. She was a young widow, still handsome, and with much grace and dignity in her manners; she was assisted only by her sister, and some females richly dressed. When we entered she was sitting alone; after inviting us to sit down, she made her sister take a seat near her, and ordered her suit to serve up coffee and refreshments. The women were all very beautiful, and this is commonly the case with the females of many of the Maïniote villages; their beauty is of a most delicate kind, that we should not expect from their manner of living: united with the fine physiognomy of the Italians and Sicilians, the Maïniotes join a smooth skin, a fine complexion, and clear chestnut colored hair, which would seem peculiar to colder climates. The men also are well proportioned, of a middle stature, and of a rather slender constitution, but muscular. The Capitaness wore a robe of blue cachemere, broidered with gold, fastened by a girdle, and a corset of crimson velvet broidered in the same manner; over this vesture she had a Polonese robe of deep green velvet, with large open sleeves, and loaded with a rich embroidery. Her head-dress consisted of a green velvet cap, covered with gold, and arranged in the form of a crown, to which was attached a white veil worked with gold, which passed over her bosom, then under her arms, and fell down her back. Her uncle was dressed in pantaloons of a bright blue color, a tight vest with open sleeves, broidered with white and gold, a red and gold girdle containing his pistols and poniard, gaiters of blue cloth broidered with gold, plates of silver protecting the joints of the thighs, and lastly a doliman of black velvet with sleeves bound with fur. When he went out, he threw over his shoulders a rich mantle of cloth blue outside and red within, with gold borders in the front and along the sleeves. His turban was green and gold, and his gray hair hung below this head dress.—The costume of the inferior classes resembles this, only the quality is different and they have no ornaments.

The Maïniotes are trained to arms from their childhood, especially shooting in which the women sometimes take part; the warlike spirit of the men communicates itself to the other sex, so that women have more than once been seen fighting with the same bravery, and displaying the same daring, and even the same cruelty, as their husbands and their brothers. They enjoy more liberty and kinder treatment than the Greek women of other provinces; they are not shut up as in other places, and this may be one reason of their fidelity, which the fear of the terrible vengeance with which the Maïniotes punish adultery may also tend to preserve. In default of male issue, the daughters inherit the patrimony and the seignories or captainships; in the villages they are devoted to rustic labor, and bear fatigue, without seeming to feel it. The Maïniotes profess the Greek religion, but make it consist merely in acts of devotion and superstition; they have a multitude of little churches, to which they do not fail to repair, after having committed acts of robbery and violence. The chapels in the mountains are all dedicated to St. Elias; and the rocks on the coast have many excavations, inhabited by hermits. They believe in charms and amulets, and adore a multitude of saints, but all this does not soften their natural barbarity. When attacked on land they take refuge in the mountains, with every pass of which they are acquainted, and from thence harass and destroy their enemy in detail. In the bays and creeks they have a great number of long boats, capable of containing from twelve to twenty men, with which they venture out into the open sea, when they have any hope of a booty. In these bays they watch for their prey like the wild beast in his den, and woe to the imprudent traveller who in unquiet times ventures into these countries without a sufficient protection. The bravery of independent mountaineers is generally mixed with frankness and honesty; but among the Maïniotes this does not seem to exist. According to M. Pongueville's description they are treacherous, cowardly, ferocious, greedy, and fanatical. We would hope, however, that this character does not apply to all the Maïniotes without distinction. It is true that for many ages the pirates of Ma[illegible]

have been the scourge of Greece, and that the Algerine corsairs have not been worse: they carried away Turks to sell them to Christians, and Christians to sell them to Turks Families who inhabit the neighbourhood of the Magne, or the Magne itself, find it very difficult to keep beautiful children: no one was sure even of his neighbour. La Guilletière relates the history of two Maïniote pirates who had often committed depredations together, but at last disputed as to the division of some booty. Animated with resentment Theodore carried away the wife of his old neighbour and associate Anapliottis, and took her to the vessel of a Maltese corsair, stationed in the road between Maïna and Vitulo, in order to sell her. The Maltese, after having looked at the woman, refused to give him the price he asked, telling him that he had bought two hours before for half the sum a much more beautiful woman, and in order that the Maïniote might judge for himself he sent for her. What were the surprise and rage of Theodore when he saw his own wife, whom his neighbour Anapliottis had already sold: he was less anxious to recover his own wife than to sell his enemy's, and therefore yielded his prey at the price which the Maltese chose to give him. In the mean time Anapliottis, hearing that his wife had been taken to the corsair, came in an armed shallop: Theodore instead of cutting his throat joined with him in forcing the Maltese to restore their wives: the two rascals were then reconciled and continued their occupation together.

The Magne contains about ten captainships, not including the mountains of Cape Matapan, inhabited by a people hitherto unconquered, the Cacovouniotes. They are brigands by choice and by necessity; in the bays, near which their cabins and hamlets are built, they watch till some shipwrecked vessel is driven by the tempests on their shores. Wo to the men that are cast on these barbarous coasts! they are pillaged, and even massacred, without mercy, by these ferocious mountaineers, who rejoice in their misfortunes. They are, however, very strict in observing their fasts; and believe, that they would be much more culpable in eating meat on a fast day, than in putting to death an unfortunate traveller! At Marathonisi, a port on the gulf of Kolakyna, resides the bach-bagon of the Maïniotes; this is the chief place in the Magne; it is only a small town, divided into narrow streets, and built at the foot of a mountain near the sea. The market-place, which is in front of the church, is the only paved place; the houses are built partly of wood and partly of brick, of one story in height. The captain resides on a height near the town; and a few arms and straw mats form his whole furniture. There are some gardens, and the sides of the mountains are shaded with pines and chestnut trees; but the Maïniotes are better soldiers than husbandmen: with the exception of fish, which their coasts supply in abundance, they draw all their provisions from the islands. The port of Marathonisi is large, but not one of the safest. Near the coast there are some antiquities of Roman construction, which the Greeks call *Paleopolis*. The ancient Gythium must have stood somewhere to the north of the present city. A rivulet of salt-water issues from the rocks, which perhaps might have been the ancient fountain of Æsculapius. The ruins of some baths are still visible, and some fragments of marble have been sometimes dug out of the earth. Coutouphari, the residence of another captain, is a village built among mountains covered with oaks; Platza and Scardamoula have also their captains; that of Platza has his tower near the rocks of Pephnos, on which a town of that name formerly stood; the thick walls of this tower, and the barrels of gunpowder ranged on the platform, put his residence into a respectable state of defence. In these captainships, the people are so little accustomed to see strangers, that they run from afar, when a European, under the protection of their chiefs, passes through their villages. Scardamoula, the capital of Androvistas, is only a little village, with three or four towers, inhabited by chiefs. On a rock near, which has been rent by an earthquake, are some vestiges of the ancient acropolis of the city of Cardamila, and the remains of some sepulchres cut in the rock below. At the village of Armyros, to which vessels retire during the winter, there is a plentiful spring, which turns several mills, and which, they say, swells as often as the wind is in the north, and subsides when it is in the opposite quarter; they suppose that it has a communication with some cavern on the coast, where the waters are agitated by the wind. Vitulo, the ancient Ætilus, is built on the sea shore, on some rocks, bordering a deep and narrow bay, called Chiniova. It contains about 3000 or 4000 inhabitants, who are pirates; they have a bishop, and a few papas. Below the modern houses are found some of the foundations of that ancient city mentioned by Homer, and of which Pausanias describes the monuments; among others the temple of Serapis. Leuctra is only a mean village; and at Cape Gros there are some ruins which indicate the situation of the ancient Cœnapolis.

The manners of the Maïniotes are very similar in all these districts; they have the same warlike character, and manifest the same hospitality towards those who put themselves under their protection. We will add a few words on the customs practised by them at marriages and funerals. A Maïniote never sees a young woman in private before his marriage; these people do not understand jesting upon matters of this kind. A chief told an English traveller, that a German musician, who had been in the country, took a fancy one day to make a declaration of love to one of their females, when she drew out a pistol and shot him dead on the spot. A young man, who was betrothed to a damsel, but too impatient to wait for the wedding day, to speak to her whom he loved, took the opportunity of her going out of her house, to attempt to converse a moment with her. The young woman was near a rock, and, conceiving herself dishonored by this attempted conversation before marriage, she preferred flying from her lover, and casting herself headlong from the precipice; and the young man threw himself after her. The marriage is celebrated with discharges of musquetry, and great festivals; dried fruits are thrown out of the

window to the passengers; and, after eight days, the married couple return to the church, and the young husband receives his wife's dowry. The bridegroom's dress consists of a garment, made of a brilliant colored stuff, with broidered seams, red drawers, with a tuft of silk, and very wide pantaloons. The women, like the men, wear no stockings; they cover themselves with a fringed veil, a silk cap, a robe without sleeves, and a scarlet tunic with very wide sleeves. On the death of a Maïniote, the corpse is exposed in the house with the face uncovered, the women utter lamentable cries, and accompany it, as well as the men, to its last home. As no fire is lighted in the house of the deceased, the relations and friends bring their food ready prepared, and eat it with the afflicted family; but, strict to their rules of subordination, the men never suffer the women to approach the table, till they are satisfied. Except in families of the first rank, the women hold a very low station among them, and are burdened with the most laborious avocations, both in the house and in the field. They have often, however, fought, as if they had been equals with the men, and not their slaves. Their common costume consists of a cotton petticoat, with a broad red or white border, an under waistcoat, and a little red cap, with a handkerchief rolled round it. The rich females adorn themselves with rings of gold and silver.

IV. The third and last grand division of Greece is the ARCHIPELAGO, consisting of a number of islands, included between the thirty-fifth and forty-first degree of north latitude, and the twentieth and twenty-sixth degree of east longitude; lying scattered over the sea between the two Greek peninsulas on the one side, and the coast of Natolia or Asia Minor on the other. On this part our present limits will not permit us to say much; nor is it very necessary since some of these islands have been already described under their respective articles, and others will occupy a place in the succeeding pages of this work. We can only, therefore, specify the principal islands, remarking their situation and their most striking peculiarities, referring our readers for a more detailed account to the articles above mentioned. There are about sixty of these islands, some of them very mountainous and rocky, others almost flat and covered with a good soil; some well peopled and rich through industry or the gifts of nature, others sterile and almost deserted. Fruitfulness, however, is the general characteristic of the Archipelago; and it appears like a vast garden intersected by canals, or a labyrinth of verdant islands scattered over an immense lake of a light bluish color. Some of them have been overwhelmed by volcanic fires; but vegetation, far from being annihilated, only makes its way with greater vigor through cinders and pumice stones. The heat, which would otherwise be insupportable, is tempered by delightful breezes, and the inhabitants of the Archipelago scarcely know what winter means; not one mountain penetrates so far into the higher regions as to become the depository of perpetual snow; a constant spring prevails, uninterrupted either by the excessive heats of summer, or by floods and hurricanes. Olive and mulberry trees, vines, grain, fruits, and cotton, abound in every island, and little labor and care are necessary to obtain a harvest more than equal to the consumption. The sea also furnishes abundance of fish, and offers to the inhabitants of these islands most important advantages in regard to navigation. By crossing the Mediterranean they can reach the continents of Europe, Asia, and Africa, and would become factors to all the commercial states of these three parts of the world, if they did but unite with their natural vivacity of mind, and habitual seafaring life, a genius for extensive speculations; or if liberty had completed their civilisation and enabled them to enter into a community of views and enterprises with the maritime nations of Europe. Formerly every island had its king; the Greeks of the Peloponnesus and of Great Greece subdued the greater part of these islands; but, since the fall of the Greek empire, the Archipelago has always enjoyed some degree of liberty: the Venetians, the Genoese, and other European powers have made some conquests in it; and the Turks have taken possession of all the islands: but it would cost them too much to attend to the government of each individual island, and, despots as they are, they have been obliged to leave to some of them a kind of liberty and independence, which has eminently favored the development of the natural genius of the Greeks. There exists in the Archipelago so great a variety of temperature, of appearances, of soil, of manners, and of customs, that it would be very difficult to give a general view of them, and every island seems to need a particular description.

Nearest to the Peloponnesus is Hydra, presenting the pleasing spectacle of a vigorous population, creating riches for itself from a narrow and barren territory, and having a considerable degree of naval power and enterprise. It has several little islands surrounding it, among which is Spezzia, having, next to Hydra, the most powerful navy in the Archipelago. At the entrance of the Archipelago, south of the gulf of Colochina, is Cerigo, formerly Cythera, the famous island of Venus, having a rocky soil, and exposed to the rays of a burning sun. There are here some ancient remains, but in so dilapidated a state, that it is difficult to ascertain for what purpose they were designed. The little island of Cerigotto, about fifteen miles distant from Cerigo, to the south-east, is useful to it on account of the pastures it affords for its flocks; it has but one house, that of the keeper, whose family forms the whole population. Milo, anciently Melos, situated at a greater distance to the north-east, with its surrounding little islands, especially Antimilo, Policandro, or Pholyandros, and Sicinos or Sikino, bears the marks of volcanic fires, consisting of rocks of black lava, and a light and porous soil of the quality of pumice stone. It was formerly celebrated for its medicinal baths, which are now situated between the town of Milo and its port. Proceeding again to the south-east, we find Thera or Santorin, the Callisto, or fair island of the ancients; it has now, however, lost its character, and is become one of the least beautiful in the Archipelago. It is, as it were, on a volcanic

foundation, and is very subject to terrible convulsions; yet it is the best peopled island in the Archipelago. These convulsions and eruptions have at different times given birth to several new islands in the neighbourhood, as Hiera or Kammeni, Micri Kammeni, &c. At some distance to the north of Milo is Thermia, anciently Cythnos, celebrated in antiquity for its fine pasturage. The splendor of its two cities is still attested by the fragments of white marble that are yet to be seen. It has two convents and sixteen churches. To the south of Thermia lie Serpho or Seriphos, and Syphnos or Syphanto, where Perseus is fabled to have turned the men into stones. The former has a dry soil, but it conceals mines of iron and loadstone, which have never been worked to this moment; the soil of the latter is more fertile, and it is rich in mines of gold, silver, iron, lead, and loadstone, as well as in a few quarries of marble. Cimolis or Argentiere is a barren and volcanic island, producing only a little barley, wine, oil, and cotton; provisions are very scarce. The most useful production is a kind of talc, proceeding from the decomposition of the red porphyry, used in scouring wool, and exported to every part of the Levant. Paros and Antiparos lie between Siphanto and Naxos; they are rich in quarries of beautiful statuary marble. The latter is rendered remarkable for its fine grotto. To the north-east of Paros is the little island of Icaria, now Nicaria, the poorest island in the Archipelago, though formerly very flourishing, and having a fine temple of Diana. Naxie, anciently Naxos, once the seat of the worship of Bacchus, is the queen of the Cyclades; it is celebrated for the production of enormous grapes, as large as damascenes. It abounds also in grain, fruits, olives, aromatic plants, and has game in great plenty: it is in every respect a beautiful country.

To the north of Paros is situated the island of Delos, famous in ancient times for the feasts of Apollo, frequented by all the Greeks. It has now become a wild desert, producing hardly any trees but mastichs, which grow among the ruins of ancient monuments. A narrow strait lies between Delos and Rhenea, which is much more fertile and of greater extent; but the inhabitants of Mycone use it only as a place of pasturage for their flocks. Syra, another of the Cyclades, is on the west of Delos; it answers pretty nearly to the description given of it by Homer, though its fertility does not equal what it enjoyed in those times. The inhabitants live in the same simple manner as formerly, and are still blessed with that longevity which Homer ascribes to them. There are but few ruins of the ancient city of Syros, and those but of little importance. To the north-west is situated the little island of Gyaros, now called Joura, whence, according to Pliny, the rats drove out the inhabitants, and which was a place of exile under the Roman emperors. To the east of Naxie lies the island of Amorgo, where formerly knowledge and industry flourished, and which furnished the Greek women with fine and brilliantly colored tissues for their dress, but all that once embellished it is destroyed, and its manufactures have left no traces behind them. Nothing but the advantages of nature remain. Northward of Thermia is situated the little island of Ceas, now called Zea; it still enjoys a fine climate, and has excellent pasturage, but its monuments are fallen into ruins. Another of the Cyclades is Tine, or the ancient Tenos, lying north-east of Syra; it presents at first sight only barren rocks to the view of the traveller, but on the sides of the hills and in the plains the finest cultivation prevails, the soil being rendered very rich by the streams of two rivers which water it; but unfortunately this fertility is dearly purchased by the prevalence of diseases among the inhabitants, arising from the marshes around them. Opposite to Tine, to the south-east, is the island of Mycone, which is rocky and unfruitful, and very much in want of water; so that the inhabitants, not finding resources in the soil, devote themselves to seafaring pursuits. Not far from Eubœa, or Negropont, is situated the well watered and fertile island of Andros, containing about thirty villages, and carrying on a considerable export trade to the continent of Greece. Very far to the north, in the fortieth degree of latitude, we meet with the island of Lemnos, of which Vulcan was, in ancient times, the tutelary god: it still bears on its surface the marks of volcanic eruptions, though the site of the volcano, in which Vulcan was fabled to have worked, is now matter of dispute among the learned. At some leagues distance to the west are three capes, forming the extremities of so many peninsulas, and being part of Macedonia; the most easterly of these is the famous Mount Athos, or the Holy Mountain, called by the Greeks Hagionoros; the principal seat of Greek monachism. It is altogether peopled by monks and hermits, who devote themselves to mortifications and abstinence of the most severe description. This country is visited by devotees from all parts of Greece. The summit of Mount Athos is discerned from a great distance, though it is by no means one of the highest mountains in Greece, being only 4278 feet above the level of the sea. A great variety of plants grow on its surface and fill the interstices of the rocks, and little gardens full of olives, vines, and different sorts of fruit-trees, adorn the neighbourhood of the hermitages. Sainte Laure is the principal of these monasteries, containing, it is said, with its dependent convents or hermitages, not less than 600 monks. Proceeding again eastward we fall in with Samotraki, anciently Samothrace, a colony of the Thracians. It is a very fertile spot, abounding in fine forests and charming valleys, supplying grain more than sufficient for the consumption of the islanders, and pasturage for their goats, from the milk of which they make excellent cheeses. To the south of Samotraki is situated the island of Imbra, on which the sea has made great inroads; wheat is its principal production, and the chief article of exportation. Still farther to the south lies the famous island of Metelin, anciently Lesbos, where the Turks have more power than in any other place in the Archipelago, and consequently the ancient monuments, which are numerous, are crumbling to dust, the inhabitants disappear, and vegetation itself seems to fail. Scio, anciently Chios, lies still farther to

the south; it was, before the year 1822, well cultivated and fruitful, and its population industrious, lively, and contented, had, by their intercourse with other nations, gained an easiness of manners that rivalled the most polished nations; at that period it was devastated by the Turks, and the unfortunate inhabitants either cruelly slaughtered or dispersed. Its women are remarkable for their beauty, their natural gaiety, and the liberty which they enjoy, and which, according to the report of travellers, does not diminish from the virtue of their character. The monks were almost as powerful as the Turks, being lords over not fewer than thirty-two villages, nearly half the population of the island. To the west of Cape Nicolo is situated the little rocky island of Psyra, now Ipsara; the greater proportion of the population consists of mariners. Still smaller, and to the west, is the rocky and elevated island of Anti-Ipsara, serving as a shelter for the port of Ipsara. To the north-west of these is the island of Skiro, or Scyros, forming the extremity of the Cyclades, and containing only 300 Greek families, with scarcely a decent house within its limits. Its port, called Saint Georges, is dependent on the monastery of Saint Laure, on Mount Athos. Near the Ionian coast lies the island of Samos, once one of the richest and most brilliant in Greece, now covered with marshes, with only a few ruins to mark the situation of its ancient temples and palaces. The chain of mountains, which crosses it, is composed almost entirely of marble, and its natural resources are still so extensive, and so various, that the inhabitants would find abundant and profitable employment, if there existed among them any spirit of industry and enterprise. To the south-west of Samos is situated the little island of Patmos, the coasts of which are surrounded by rocks of black porphyry. On an elevated mountain is shown a grotto, where the banished apostle John is said to have written the Apocalypse; at the top is a monastery with about fifty monks.

A number of little islands are scattered about on the sea to the east of Patmos, bearing the names of Nacri, Lipso, Agathonisi, Fermaco, &c., and on the southern side are those of Capra, Caprone, Calanc, and Lero. The charming island of Cos lies to the south-east, the native country of Hippocrates and Apelles. There is a number of ruins lying on the site of the ancient city of Cos, and the vast plane tree is still standing, which is said to have formerly covered forty shops with its shade. The island is yet subject to the Turks. Still farther to the south-east is the larger island of Rhodes, which has lost the importance it has at different periods assumed, but the inhabitants still retain their love for the sea. Two-thirds of its population are Turks, and there are about 1000 Jews. Its ancient cities have almost entirely disappeared, and but few remains of its ancient monuments are to be seen. Every thing in Rhodes used formerly to be gigantic, and its celebrated colossus, even without believing the fable of its legs reaching from one pier to the other of the harbour, must have been an astonishing monument, and well worthy of being accounted one of the seven wonders of the world. In the neighbourhood are several small islands; particularly that of Castel Rosso, famous for its good port; and Symes celebrated for its sponge fishery. At an equal distance from Syria and Caramania is the large island of Cyprus, now called Cypre or Chypre, which after having been successively governed by the Phœnicians, the Greeks, the Romans, and Venetians, fell into the hands of the Turks in 1572. The land is dry, and the climate unwholesome; the plague, the despotism of the Turks, the barbarity of pirates, every thing conspires to the ruin of the Cypriots, and, without some remarkable change occurs, they will soon be extirpated. The wine of Cyprus is still very fine, and the island produces excellent wheat, its bread is indeed the best in the east. South of the Archipelago lies the extensive island of Candia, anciently Crete, being nearly 200 miles long. Of all its formerly splendid cities only a few ruins are visible, its picturesque landscapes are now deserts, and the dominion of a foreign nation has extinguished the genius of the people, who are now so diminished in numbers as to be scarcely able to cultivate one-fourth part of the soil. Leprosy is here so common, that most of the inhabitants are infected with it, and many are obliged to separate themselves from the society of their friends. We shall mention but one more island, that of Tenedos, near the coast of the Troad, from which it received its celebrity, and, as long as Troy flourished, it shared its prosperity. It is now remarkable for its vineyards, and its situation is important as overlooking the entrance of the Dardanelles. It has but few trees, and little verdure. The Troad, a large country on the continent of Asia Minor, was in early times much connected with Greece. It is opposite to Tenedos, and contains many vestiges of its ancient splendor; but we must refer our readers for a full account of it, to its appropriate article.

History.—Since the year A. C. 146, when Greece became a Roman province, under the name of Achaia, the history of this country has been more or less mixed and identified with that of its successive conquerors. Though the splendor of Constantinople, during the time of its prosperity, might have reflected some lustre upon Greece, yet it gained scarcely any thing under the miserable emperors, who filled the throne, of which they were not worthy, for a long time previous to its fall, and who were most of them hurled from it by the hand of violence. The Latins, the enemies of the Greek emperors, seized on the Morea, and laid it waste; the Sicilians and the Normans afterwards made themselves masters of part of the same peninsula; a marquis of Montserrat succeeded to the government of its ancient republics, and an obscure gentleman of French origin, Guy de la Roche, became duke of Athens, while the Messenians and Arcadians were condemned to become the serfs of a lord, who was not even acquainted with their language. The crusades, which commenced in the eleventh century, for a length of time affected Greece, particularly in some of its islands, on which several of the

leaders in those mad enterprises settled; but it was not at all probable, that the semi-barbarous customs of the feudal system, which they brought with them, would confer any real benefit upon the people, or re-kindle the torch of science, which was nearly extinguished. The same remarks will hold good with regard to the knights templars, and the knights of St. John, who about the same time exercised an influence over some parts of this country; the blind devotees themselves of a senseless and degrading superstition, they were not likely to improve the manners, or advance the real prosperity of those whom they governed; and these falsely called Christian heroes of the middle ages only prepared the way for the more desolating and despotic sway of the Turks.

Under the barbarous yoke of the Mussulman power, Greece has continued with very short intermissions, until in modern times it has begun to assert its claims to independence, and to commence that struggle for liberty which, whatever may be its termination, entitles it to the sympathy of every real friend of man. Towards the end of the seventeenth century the Venetians invaded the country, took Athens, and extended their power over a great part of the continent and some of the islands; but, republicans as they were, they treated in the most despotic manner the serfs of the Morea: still, as they wished to realise some advantage from their conquest, they encouraged the people to cultivate agriculture. It is to them that they owe the numerous plantations of olives, the remains of which are still found in the woods: some historians assure us, they contived to manage this country so well, that they realised a revenue of 300,000 crowns; they rebuilt several ancient fortresses, and were very anxious to keep a conquest which they judged necessary to secure their dominion in the Archipelago. But Venice experienced changes in her turn; she lost one possession after another, and at last, at the beginning of the eighteenth century, the Morea was wrested from her after the loss of Candia.

Again the Turks became masters of the peninsula, made the inhabitants feel the weight of their iron sceptre, and imposed the karatch, or capitation tax, as a price at which they consented to spare the lives of the vanquished. The interference of Christian powers, however, especially of Russia in the year 1770, only tended to increase the miseries and aggravate the bondage of the unhappy Greeks. Peter the Great had, there is no doubt, laid the foundation of a plan for assisting them, and driving their oppressors out of Europe; and the empress Catherine, following up the views of her great predecessor, sent a fleet of twenty sail of the line, towards the close of the year 1769, which took possession of several islands, attacked the Turkish fleet, and finally succeeded in destroying it. The call to the Greeks on this occasion to arm themselves, and shake off the yoke, was instantly obeyed, and an insurrection took place throughout the Morea, and in many of the islands of the Archipelago. The Russian fleet, however, was re-called, and the poor Greeks abandoned to their fate. The Albanians ravaged the country in conjunction with the Turks, who carried off a great multitude of the inhabitants into slavery. It is confidently stated by Eton, in his Survey, that a deliberate proposal was made in the divan, to exterminate all the Christians in the Morea, innocent or guilty, of whatever sex or age, and that this blood-thirsty design was only stopped by the observation, that in case of a general massacre the Ottoman Porte would lose the benefit of the karatch or capitation tax, which they paid. The Albanians conducted themselves with so much cruelty, that at length the Turks were obliged to reduce them to a state of peace by force of arms. The brave Lambro, a native of Thebes, who had the courage to keep the sea against the power of the Turkish fleet, was proscribed, and compelled to wander from one country to another, as a miserable exile. Notwithstanding the diminution of the population, and the increased distress which prevailed in the Morea, the karatch was estimated in 1780 at 56,670 notes from three to eleven piastres each for the whole peninsula, with the exception of the Magne; and this large sum did not exempt them from the payment of the tenths, the customs, the taxes on wine, as well as the dues attached to the ancient feudal lands. 'The rise of Ali Pacha,' says Mr. Blaquiere, 'not long after the peace of Kaimardgi, rendered the situation of the Greeks more hopeless than ever; the enterprising and ferocious spirit of this chief had enabled him to extinguish the last remains of Christian freedom in Epirus, and his vicinity to the Morea gave him the power at all times of pouring in any number of those barbarous hordes, to whom it had recently been given up: and, in order to render such an operation still more easy, all the approaches and passes were occupied by Albanians devoted to his interests.'

Notwithstanding the persecutions which followed the fruitless struggle of the Greeks, in 1770, the spirit of the people was not yet broken, nor their anxiety to shake off the insupportable yoke, under which they groaned, at all diminished. For a while, however, they applied themselves to trade, and to the acquisition of useful knowledge, judging this the best mode of ultimately securing the object of their wishes. The French revolution, which took place in 1789, was very favorable to their interests in this respect, by bringing them into relation with the more civilised western nations, and opening a wider field for their commercial speculations. No people ever manifested so much enthusiasm in the pursuit of knowledge as the Greeks have done for thirty years past, and a wonderful change has been the consequence. 'It is worthy of record,' adds Mr. Blaquiere, 'that not more than half a century has elapsed since there was but one possessor of a map among the Fanariot Greeks, who from their residence in the capital, and admission to the highest political employments, might have been considered much more enlightened than the rest of their countrymen. Yet, before the recent explosion, there was scarcely an individual in this class, who had not experienced the benefit of a liberal education, while many were distinguished for their varied and extensive erudition; even the young ladies

of the Fanar joined the study of Homer and Thucydides to that of modern languages and music. There have been numerous examples, both at Constantinople and in other places, of youths denying themselves the necessaries of life, that they might be able to attend the schools.'

In general the Turks did not oppose any impediments to this ardor, or to the progress of knowledge that was making such rapid advances; though individual instances of arbitrary conduct were sometimes too frequent. It is said, for instance, that the Turkish commandant of Dara, a village in the Morea, happening to pass the school, while pupils were taking their lessons, had the didascalos or master dragged out and bastinadoed, and it was then dangerous to complain. The most flourishing Greek academy, was that at Scio, attended by several hundreds of students, and furnished with books, chemical apparatus, and astronomical instruments. The colleges of Joannina, Athens, Bucharest, Aivali, and Cydonia, were also eminent; but they have been destroyed in the political struggle.

Close to the eastern shore of the Peloponnesus lie the islands or rather barren rocks of Hydra and Spezzia, and near Scio is situated that of Ipsara. Furnished by nature with commodious havens, these islands afforded a refuge to some Albanian families, who were driven out of their own country by tyranny and want, and who, settling on them, built villages, and applied themselves to fishing. By degrees a coasting trade was opened to them, and their commerce extended, till they were at length able to purchase the right of governing themselves, paying a tribute, and annually furnishing the Porte with a number of sailors. Thus, at liberty to purchase the dictates of their own active minds, they became some of the most hardy and skilful seamen of Europe, the number and size of their vessels increased, and they were soon the carriers of the productions of Russia and Asia to different ports in the Mediterranean. As they were much exposed on these voyages, especially to the attacks of the Barbary pirates, it was necessary to have their vessels armed, and the transition was easy to the formation of a fleet for warlike purposes. Their wealth increased, and these islanders soon had little to wish for; but they felt the political debasement of their countrymen, and in the recent struggle they have more than once boldly attacked and put to flight the Turkish squadrons.

At the time of the expedition of the French into Egypt, the Greeks, strongly excited by the events of the war, which was thus approaching them, waited for them as liberators, with the firm resolution of going to meet them and conquering their liberty; but again their hopes were disappointed, and the succours they expected from France were removed to a distance. The brave Rhigas, at once a poet and a warrior, and the author of the famous national air in imitation of the Marseillois, which is to this day the war song of the Greek troops, perished at Belgrade by the hands of the oppressors of his country; but his blood, and that of other less celebrated chiefs, have only served to inflame the nation instead of discouraging it. Having waited in vain, in the midst of the great events, which in several respects have changed the whole face of Europe in this century, the Greeks, taking counsel only of their despair, and indignant at living always as Helots on the ruins of Sparta and of Athens, when nations but of yesterday were recovering their rights and recognising their social relations, rose against their despotic and cruel masters, perhaps with greater boldness than prudence.

The first decided movement in these later times took place in the year 1800, when the Servians, provoked by the cruelty of their oppressors the Turks, made a general insurrection, which was headed by their famous chief Czerni George, who had served as a serjeant in the Austrian service, and afterwards became a bandit chief. He was possessed of much energy of character and bravery; but he was extremely despotic, and is said to have murdered his father, and caused one of his brothers to be hanged. Under him the Servians obtained several victories. He blockaded Belgrade; and, one of the gates being surrendered to him, he made his entry into the city and slaughtered all the Turks that were found in it. At this time the affairs of the Porte were in great disorder; it had but just terminated its war with France, and the efforts, by which it had been endeavouring to reduce Passavend Oglou, pacha of Widden, had failed and ended in disgrace. At home the Janissaries were ever dissatisfied, and Roumelia was in a state of disturbance. The divan, however, exerted themselves to quell the Servians, and they were aided by the Bosnians, in consequence of which many sanguinary combats took place. Relying, however, on the promises of the Russians, and receiving pecuniary succors from Ipsilanti, the hospodar of Walachia, the insurgents continued the contest, taking refuge in the heights when their enemies were too powerfu. for them, and, when these were obliged to retire into winter-quarters, issuing from their fastnesses and marking their progress through the surrounding country, by spreading devastation in every direction. In the mean time Russia openly declared against the Porte in 1807, and carried on the war until the year 1812, when the treaty of Bucharest was negociated; and though some efforts were made to obtain a concession in favor of their Servian allies, yet one difficulty after another being stated by the Porte, a peace was at length concluded, as before, upon such terms as left the insurgents to their fate. The Turks in the summer of 1813 sent Choursbid Pacha with nearly 100,000 men, who over-ran the country, meeting with scarcely any resistance, and signalised his triumphs by treacherously executing many, and among the rest a number of persons who had returned to their homes, under a false promise of an amnesty. It was not long, however, before the Servians took up arms again, and obtained some advantages over their enemies, and the Porte, at length wearied out, sent a Greek bishop to conduct the negociation. By the treaty then made, it was agreed, that Milosh, brother-in-law to Czerni George, a native, should be their prince, that the sum of £100,000 should be paid yearly to the Turks, whose garri-

sons in the fortresses of the Danube were to be limited, and that the prince should maintain a few national forces, for the regulation of the internal policy; stipulations decidedly evincing the real weakness of the Porte.

The period that intervened between 1815 and 1820 was apparently tranquil: the Ottoman affairs seemed prosperous; the sultan, Mahmoud, by his vigorous measures, maintained peace with his neighbours, quelled the spirit of the mutinous Janissaries, suppressed several revolts in the eastern part of the empire, drove the Wechabites from Mecca, and gave more weight to the imperial firmans, than they had heretofore possessed. But, under this appearance of tranquillity, all those projects were forming which have produced the recent concussions. The Greeks soon became more open in their plots against their oppressors, and entertained some considerable hopes from the probable arrangements of the congress at Vienna: but that congress closed without effecting any result favorable to the liberties of Greece. This, however, did not damp the ardor of its friends, nor induce them to abandon the plans they had projected. About this time was formed the celebrated association of the Hetæria, the true object of which was the emancipation of Greece, though this design was concealed under the show of distributing books and extending the benefits of education. Almost all the Greeks in Europe, and men of great note, repaired to St. Petersburgh where its head-quarters were fixed, under pretence of commerce and other business, but really to obtain by means of count Capodistrias, their countryman, some immediate or early support from Russia; and, though he told them that at present nothing could be attempted openly in their behalf, he displayed much interest in their affairs, and generally dismissed them with a present from the emperor. In the mean time Czerni George, who was then residing at Kiow, and count Galati, a native of Corfu, who was a relation of the Russian secretary, having no hope of immediate aid from abroad, in the year 1817 resolved upon a plan to begin the revolution, relying on their own resources for success. The former was suddenly to make his appearance in Servia, and thus creating a diversion of the Turks to that quarter, to afford Galati, Colotroni, and other patriots an opportunity of making an effort in the south. He set out in disguise on this errand, and had reached his destination in safety, when he was treacherously assassinated by his relative and former friend Milosh, and his head sent to Constantinople. This event stopped, for the present, the progress of their scheme, and Galati retired to Bucharest, where he died soon afterwards, and the completion of his mission devolved upon other agents.

The degree of independence enjoyed by Servia, was a source of disquietude to the sultan and the divan, and they seemed determined, if possible, to violate it. The fortified posts on the Danube were repaired, and well stocked with provisions and ammunition; their garrisons, notwithstanding the treaty of 1815, were increased, and fresh troops called in from all sides, professedly to relieve their comrades; but none returned. An attempt was also made to put Milosh out of the way, but he was too wary to be taken in the snare; he sent deputies to Constantinople, and was taking measures for defending himself, when the attention of the Turks was called off from him by the insurrection, which broke out in the south.

It appears that the Hetærists had not intended to commence their operations before 1825, leaving sufficient time for the arrangements they had to make; but the rupture between Ali Pacha and the Porte, and the civil war that ensued, rendered it expedient to proceed to the execution of their design much earlier. The Albanian tyrant had, until this period, kept the Greeks in awe; but, the moment an attack upon himself seemed inevitable, he called upon them to arm in his defence; the Porte did the same, and some of his best troops forsook him on this occasion; he found opponents also in the peasants of Mount Pindus; and the Souliotes, his old enemies, were brought to the continent to act against him. The Porte, however, did not fulfil its promises to those who lent it their assistance, and the Greeks, in the disappointments they experienced, forgot the despotic acts of their former tyrant. Ali learned all these circumstances with great pleasure, and availed himself of them. By means of his money and his intrigue he soon brought over the chiefs who had deserted him, and even gained the Souliotes to his party by surrendering to them their strong holds, with all the treasures and ammunition contained in them; so that Souliotes, mountaineers, and Klephtai were all soon engaged in harassing the Turks, and cutting off their communications. These again drew off the flower of their armed force from Livadia and the Peloponnesus, and left the field open in those quarters for the efforts of the friends of freedom. A subscription immediately commenced, and a commander-in-chief was appointed; the choice of the Hetærists fell on Alexander Ipsilanti, the son of a former governor of Walachia, who retired and died at Kiow; he had been in the Russian service, and was at that time aid-de-camp to the emperor. Prince Cantacuzene, another Russian general, of Greek extraction, also volunteered, though of higher rank, to serve under the generalissimo; and Michael Suggo, hospodar of Moldavia, engaged to join them on their reaching Yassy. A conspiracy was organised in the capital, and it was thought that on the news of the revolt the Servians would unite with the Greeks.

Some of the chiefs of the Arnauts or Albanians had been treated with, that they might furnish a body of forces to act under Ipsilanti; but while the latter was making his arrangements, and about to give the signal, another individual appeared, influenced by private and interested motives, to raise the standard in Walachia. This was an adventurer named Theodore Vladimiresco, who had differed with the Boyards or nobles of his country, on account of some claims he pretended to have for money spent in the state service: but the divan would not judge the affair, till the new prince had arrived. He therefore entered the field against them, at the head of 300 well-armed men. The divan re-

solved to call upon the pacha of the Danube for assistance; but the entrance of these troops was opposed by the Russian consul; and the Boyards upon this formed a body of Arnaut horse, Servians, Walachians and others, under the conduct of the aga, Nicolas Vacarisco. He had scarcely, however, proceeded a day's journey, when it was intimated to him by the troops, that he need not go farther, as it would be both useless and dangerous. Meetings of the divan were held daily, and more urgent representations made of the necessity of calling in the Turks, as Vladimiresco was rapidly approaching. In this situation of affairs, some news from the north gave the finishing stroke to the weak government of the divan. Vladimiresco was not connected with the Hetærists; his only object was to enforce his private claims, and immediately on his arrival he put forth a declaration, which soon brought Ipsilanti to Yassy at the head of 200 men. Surprised at this sudden appearance, the Moldavians were about to resist, but their minds were quieted by prince Suzzo, who publicly testified his participation of Ipsilanti's measures, and withdrew his allegiance from the Porte. On the 7th of March 1821 prince Alexander addressed a spirited proclamation to his countrymen, calling upon them to shake off the Turkish yoke, to follow the standard of the cross, and in conjunction with him to attempt the liberation of Greece. The Hatærists wore a uniform entirely black, in token of mourning for their country, and a phœnix rising from its ashes was described on their banners, as a symbol of that regeneration they hoped to achieve.

Tidings of these things soon reached Bucharest, and excited great consternation; the hopes of the divan appeared to rest on Brancovano, the Boyard, who possessed most influence in the country; but in the midst of this anxiety he departed one morning early with his family and effects for Transylvania. The Russian and Austrian consuls also left the town, and, to increase the confusion and distress, Vladimiresco's troops fell upon the fugitives, and plundered and ill-treated them without distinction; the women even, some of them of high rank and beauty, were insulted. That chief himself took possession of the city, and gave a loose to his disorderly forces to commit various excesses; he seemed, indeed, bent on making war on his own account, and nothing but the influence of Douka, his lieutenant, who had entered into Ipsilanti's views, made him agree to the proposal of acting in conjunction against the common enemy. This was not the only mortification that the prince experienced; he had expected the co-operation of Russia, and the reception he had met with in Moldavia in a great measure was to be attributed to the expectations of this succour; but in the midst of these expectations, and while the Russian ambassador was daily insulted in the capital, the emperor published a manifesto, treating the Greek leader as a rebel and incendiary. This turned the whole tide of public opinion, and reduced the patriots to a state of mingled despair and rage. Prince Suzzo ceased to have any influence in Moldavia, and was obliged to leave the province: the plot laid in the capital was discovered and frustrated; the Servians made no effort, but a Greek emissary, who was sent among them, was discovered and hung by the Turks. The state of his own army too was most discouraging to Ipsilanti; he wished to bring it into a state of discipline, and to arm it in the European manner; but the envy and intrigues of his lieutenants defeated his intentions, and the soldiers were completely unmanageable. There was only one corps on which he could place any reliance, a body of Greeks, who had been brought up in Europe, consisting mostly of students and merchants' clerks, on whom, on account of their patriotism, he conferred the title of the Sacred Band, and who justly merited the distinction. In the beginning of April the Turks took the field, and, after a few skirmishes, captured Galatz, the Greek garrison of which place, after making a brave but ineffectual resistance, were partly cut to pieces, and partly obliged to seek refuge in flight. The Turks carrying fire and sword wherever they came, and sparing neither age nor sex, entered Bucharest on the 10th, without meeting with any resistance. Women and children were indiscriminately butchered in this neighbourhood. In one monastery alone 300 women and children were put to death; and the Turkish soldiers are said by M. Blacquiere to have hung numbers of the latter by the feet on trees, along the public roads.

Vladimiresco, whose motives were altogether selfish, and who was envious of Ipsilanti's having the chief command, was tampered with by the Turks, and promised the dignity of hospodar, if he would give up his associates; he therefore refused to assist the prince, who wished to risk a battle in defence of Bucharest. The city was consequently abandoned, and a retreat to Tergousto commenced: here, having arrested the traitor, the prince had him tried, and on his being condemned he was immediately executed, and his troops united to those who served under Ipsilanti. This, however, did not put a stop to the disaffection and treason that prevailed among the officers. On the 17th of June a battle took place between Ipsilanti's forces and a Turkish division that had advanced against him; for a long time the contest was obstinately maintained, but treachery was at work; the infamous Karavia fled with his Arnaut cavalry, and in his way threw the corps of Nicolas Ipsilanti, the prince's brother, into such disorder, that not all his efforts could rally his men. The troops were upon this seized with a panic, and, notwithstanding all that Alexander could do, re-crossed the Oltau, and abandoned the sacred band to the enemy. These, imbued with the spirit of their ancestors at Thermopylæ, preferred a glorious death to flight or dishonor, and thus nearly 400 Greek youths perished amidst slaughtered heaps of their enemies, who fell around them. The hopeless Ipsilanti now proceeded to Trieste to join his brother in the Morea; but the Austrian cabinet arrested him, and shut him up in the castle of Mongatz in Hungary. After this the provinces submitted; but two chiefs, of whom the brave Giorgaki was one, betook themselves to a convent on the Pruth, where they made a desperate resistance. One of them died on his way to Constantinople, the other was beheaded. The

neroic Anastasius, with his small body of 500 men, continued to keep his position near the river for three days, until half his soldiers were cut off; he then, with his brave companions, plunged into the river, and was received by the Russians on the other side. Not fewer than 4000 Turks perished on this occasion.

The news of the revolt in Moldavia produced in Constantinople the usual measures. All who were in any degree related to, or connected with, the revolters were immediately massacred; and it has been confidently said, that the divan resolved on the complete destruction of the Greek people; orders were sent to the provinces to disarm all of them, and the consequence was, that massacres took place at Salonica, Adrianople, Smyrna, Aivali, Rhodes, Cyprus, Candia, and in every place where any plunder was to be obtained.

Before this revolt the secret of the Hetærists had been confided to a few ecclesiastics, some of the primates, or municipal magistrates, and a select number of the klephtai in the Morea. A set of emissaries had arisen, called apostles by their employers, who went every where, spreading reports, that the sultan had determined to transport all the Greeks into Asia; that prince Alexander, aided by Russia, was marching with a large force to Constantinople, &c., the people greedily receiving their information, and engaging at once in the enterprise. The inhabitants of Sedena, a large village in the north of Arcadia, first took the field. The Turks, however, had taken the alarm and proceeded to Tripolitza to invite the Greek bishops and primates to a conference, detaining in confinement those who were so incautious as to venture into their power. A few were thus ensnared; but the attempt to make the people deliver up their arms was less successful; the governor of Patras, meeting with a decided refusal from the Christian inhabitants of that place, fired upon the town from the castle, and easily took possession of it; but the next day Germanos, the archbishop, made a descent from the mountains with nearly 4000 peasants, and obliged him to take refuge again in the citadel. A rising immediately took place through every part of the peninsula, while the standard of independence was unfurled by the people of Hydra, Spezzia, and Ipsara, who with their numerous vessels began to cruise against the Turkish traders with the utmost celerity. Many richly laden vessels were taken by them at first; but, when the news of the revolt was spread, no merchantman would venture out into the Mediterranean. Samos and other islands declared themselves free, and Lesbos, Rhodes, and Scio were kept in awe only by the Ottoman garrisons. In Cyprus the introduction of 10,000 Syrians prevented the rising of the people, and 10,000 Christians perished here without any attempt to revolt.

The Turks, astonished and affrighted, now betook themselves to their fortified places. The agas of Calavrita and Calamata were compelled to surrender; in Elis, the Mussulmans at Gastouni and Lala had sharp contests with the Greeks; those in the latter place gave them much trouble, and nothing but the appearance of count Metaxa, with a few pieces of cannon, could overcome them, and one of the best contested battles of the whole war took place on this spot. The Laliots were forced to retire from their town, which they set on fire, with the loss of 300 men. Skirmishes occurred continually, and, both by the one party and the other, a number of towns and villages were burned, and of those that remain the greater part have been much injured four or five different times. The citadel of Patras at this time had nearly been taken by the Greeks, but was relieved by Yusuff, pacha of Negropont, who afterwards also raised the siege of Lala.

About this time appeared, to aid the cause of the Christians, that hardy mountain race the Maïniotes. The whole peninsula by the middle of May, with the exception of a few fortresses, was in the hands of the Greeks, and a new government was established consisting of archons and bishops. In the mean time the seraskier Chourshid Pacha, who was blockading Ali Pacha in the citadel of Joannina, and cutting off his communication with the Souliotes, dismissed what forces he could spare into Greece: 2000 Albanian cavalry, with his kiayah or lieutenant at their head, landed at Patras, raised the blockade of the acropolis, burnt Argos, and proceeded to Tripolitza, where he took the command, and began to make plundering excursions. In one of these excursions, Nicetas, or Nikitas, the bravest and most magnanimous of the Greek commanders, with only fifty soldiers, fell in with nearly 3000 Turks, and three pieces of cannon; he kept up such a spirited fire, that he repulsed the enemy with great loss. Ali Bey, the second in command, was killed by a musquet ball.

On the 6th of June the Greeks, commanded by Colocotroni, assisted by Anagnostoras and the bey of Maïna, were attacked by the kiayah. The infidels were so confident of victory, that they celebrated it beforehand by Albanian dances; but on the rocky and uneven ground on which they had to act, they were soon thrown into confusion, and the vigorous attack of the Maïniotes in flank, completed the rout; 200 of them, at least, were slain. After this the Turks did not take the field again, and the Greeks had only to watch the fortresses. Taking up their head quarters before Tripolitza, they laid siege to Modon, Coron, and Malvasia; Navarin was invested by 2000 Peloponnesians and a band of Ionians; and a body of Achaians, with allies from Cephalonia and Zante, blockaded Patras. The Argolidan militia blocked up Napoli di Romania, and the Corinthians and Sicyonians besieged the Acrocorinthos. The vessels of Hydra and Spezzia cruised along the coast to prevent communication, and Bibolina, the heroine of Spezzia, took charge of blocking up Napoli, with seven armed ships, her own property, and fitted out at her expense.

The insurrection in the northern provinces continued to gain ground. In Acarnania and Elis there were very few Turkish troops, and in Phocis, Attica, and Bœotia, the peasants assembled, but nothing very worthy of notice occurred. Omer Vrioni, a celebrated Albanian chief, marched to Athens with 700 horse; here a few Turks were

shut up, in great straits for provisions, and the Hydriots had landed a body of men with some ship-guns at the Piræus. Hearing, however, of Omer's approach, the Hydriots sailed away, and the Athenians took refuge in the mountains. In Macedonia the Greeks had, in the first instance, been rather successful, and had advanced as far as Salonica; but they pursued no settled plan. Being routed in a few skirmishes, they were seized with a panic, and fled to the treble peninsula of Cassandra, Torone, and Athos. The Greek inhabitants, too, of Mount Pelion, were excited to take up arms, but they were soon overpowered by the Turks.

At sea the Greeks were greatly superior, keeping the Turkish ports and islands of the Ægean in complete blockade. Two Turkish ships of the line, however, and some vessels of smaller size, left the Hellespont about the end of May, and proceeded to Lesbos. The Greek fleet met with one of them of seventy-four guns, which ran into the gulf of Adramiti; when the Greeks sent in two fire-ships, chained together, while the Mussulmans stood still on the deck, thinking they meant to board them, and mistaking some figures they had dressed up for men. In a few minutes the Turkish vessel was in flames; and though the captain cut his cables, and let her drive to the shore, the crew took to the sea to save themselves, but were opposed in their attempts to land; so that hardly one out of 800 escaped. The other part of the squadron now made for the Dardanelles with all possible haste.

Early in June Demetrius Ipsilanti reached the island of Hydra. He bore a commission from his brother, appointing him commander-in-chief of all the Greek forces, and was accompanied by Cantacuzene and others. He was received with every demonstration of joy. Proceeding to the Morea, he assumed, at Tripolitza, the command of the army. As soon, however, as the disastrous termination of the campaign in the north was divulged, the ardor of his troops cooled, and the ephors, or primates, were deaf to all his propositions. Candiotti soon left the Morea, suspected of having appropriated part of the subscription money he had received. Affendouli also, another partizan of Russia, went to Crete, and obtained the command of the independent forces; but he was soon considered as an impostor, and very nearly lost his life. Ipsilanti's wish was to organise a general and central government for all Greece; and to put the army into a state of discipline. In these plans he met with much opposition; the captains and ephors uniting to oppose him. The events, too, that attended the surrender of the two strong fortresses of Malvasia and Navarin in the month of August gave him still greater disgust. The garrisons of both these places were reduced to a state of starvation, being obliged to eat their slippers; and, in the case of the former, to feed on human flesh, eating their prisoners, and even their own children. The one surrendered to Cantacuzene, and the other to Tipaldo, the Cephalonian, on the faith of being transported in Greek vessels to the coast of Natolia; while, however, these treaties were pending, the news arrived of the murder of the patriarch, and of the Greek clergy, at Adrianople, and excited the troops to a pitch of fury; a considerable number of the garrisons were therefore sacrificed, and it was with great difficulty, that the generals interposed to save any of them. Ipsilanti, indignant at these disorders, published a proclamation, severely reprehending them; and resigning the command, retired to Leondari, until the alarmed primates and captains sent a deputation to his retreat, and prevailed on him to return.

All eyes were fixed on Tripolitza, which was now in a state of close blockade, and its fall daily expected. The usual population was about 15,000 souls; it is also computed, that the garrison, with all the Albanians of the Kiayah, amounted to 8000 men; there could not, therefore, have been fewer than 20,000 persons within the walls; yet they allowed themselves to be blockaded by 5000 undisciplined and ill-armed Greeks without artillery or cavalry. While the Turkish horse were in a state for service, the Greeks did not attempt any thing in the plain; but their forage soon failed, and the only food they could get was vine leaves. Provisions were become very scarce; and the Greeks had cut the pipes, and thus intercepted the supply of water. Ipsilanti, however, was impatient and felt anxious to begin a regular siege; but he had neither proper ordnance nor engineers. Some cannon and mortars had inded been brought from Malvasia and Navarin, and were entrusted to the care of an Italian adventurer, but in the first essay he burst a mortar, and was dismissed. Things were in this state, when prince Mavracordato arrived, bringing with him some French and Italian officers. About the same time arrived Mr. Gordon of Cairness, who, sympathising with the condition of the Greeks, loaded a vessel with cannon, arms, and ammunition, and raised a few followers on whom he could rely. Ipsilanti now resumed his design of disciplining his troops; and Mr. Gordon, who had been an officer in the late wars, assisted in forming companies. In the beginning of October the Turks began to make propositions for a capitulation, and the treaty was proceeding, on the 5th, when an accidental circumstance rendered it of no avail, and hastened the catastrophe. Some Greek soldiers, having approached one of the gates, began to converse, and, as usual, to barter fruit with the sentinels. The Turks imprudently assisted them in mounting the wall, but no sooner had they gained the top than they threw down the infidels, opened the gate, and displayed the standard of the cross above it: immediately the Christians rushed from all quarters to the assault, and the disorder became general. The Turks immediately opened a brisk fire of cannon and small-shot; but the gates were carried; the walls scaled; and a desperate struggle was kept up in the streets and houses. Before the end of the day the contest was over, and the citadel, which held out till the next evening, surrendered at discretion. About 6000 Turks, it is said, perished, some thousands were made prisoners, and numbers fled to the mountains.

While these transactions were occurring at Tripolitza, four pachas proceeded in the month of August from the frontiers of Thessaly and

Macedonia to Zeitouni, with the design of forcing the straits of Thermopylæ, and in conjunction with the Ottoman troops, at Thebes and Athens, relieving the besieged fortresses in the Morea. Odysseus was stationed on a height above the defiles at a place called Fontana. They sent a body of 300 horse to reconnoitre his position, but this detachment was cut to pieces. The next day they attacked him with their whole force; at first the Greeks gave way, but a brave chief, named Gouraz, made a stand, and rallied the fugitives. They returned to the charge, and the infidels were routed with the loss of 1200 men. One of the pachas was slain, and vast quantities of baggage and ammunition taken. This was on the 31st of August, and was a victory of immense importance to the cause. About the same time the bishop of Carystus raised an insurrection in Eubœa, and endeavoured to intercept the communication between Athens and that island.

The grand Ottoman fleet left the Dardanelles on the 14th of August; it consisted of thirty sail; four of them of the line, and one three-decked vessel. After an unsuccessful attempt on Samos, the commander, Kara Ali, the capitana bey, steered his course northward, the Greeks with 109 vessels pursuing him, but only attempting to separate his fleet, attacking it with fire ships. The Turks, however, took care to avoid these machines, and kept in a close body, always sailing. After this Kara Ali proceeded to Peloponnesus, exciting a general consternation. From Modon the capitana proceeded to Patras, where 3000 Achaians and Ionians blockaded the place on the land side, and several light vessels cut off the supplies by sea. The latter, on the appearance of the fleet, fled, and either took shelter at Galaxidi, or ran aground in the shallows of Messolonghi, where they were burned by the Turkish boats. Having arrived in the roads, Kara Ali discharged his artillery upon the camp of the Greeks, and the garrison made a sally at the same time; one post resisted, but the remainder of the besiegers fled to the mountains, leaving the few guns they had in the power of the Turks. This event led Ipsilanti to abandon Tripolitza, for the purpose of renewing the blockade and obviating the consequences of this defeat. On the 30th of September, at day break, having learned that the forces of the sultan had landed at Vostizza, he marched to meet them, and, approaching the coast, took his station on an eminence. On the 1st of October, at noon, the fleet steered to the north-east, and in the evening arrived off Galixidi, a commercial town on the bay of Cyrrha, near the entrance, and immediately summoned it to surrender. The Galaxidiotes answered the summons by firing on the boat that brought it. Immediately the attack commenced, and the place was battered for two hours, till night came on, and at day-break for two hours more, when a cloud of flame and black smoke announced but too plainly the issue. The inhabitants had fled to Salona in the mountains, after destroying their batteries and vessels. The wind changing to the east, the Turkish fleet now proceeded towards Patras. Demetrius advanced, summoning the garrison of the acropolis at Corinth on his way, and warning them by the fate of Tripolitza; having stopped a day or two at Argos, and visited Napoli, he reached Tripolitza on the 15th. The appearance of the town was most wretched; the Maïniotes had carried every thing off, and the prince was assailed on all sides by complaints about the unequal distribution of the booty.

An assembly was now called to meet at Argos for the purpose of organising a government, and the prince repaired thither to attend it; while deputies in the mean time arrived from different parts to demand succours from the administration of the peninsula, and to report what was doing in their districts. In Macedonia the monks of Mount Athos, provoked by the violent proceedings of the Turks, were driven into revolt. The pacha of Salonica had summoned them to receive a Turkish garrison, and, without waiting for a reply, seized a number of servants who cultivated their lands, and had them publicly executed. The monks, upon this, imprisoned the Turkish governor, and opened a communication with the forces at Potidea and Torone. The Turks sent expeditions twice against Cassandra, and were as often repulsed; in the latter attack the Christians sallied out and took nine pieces of heavy artillery. Being distressed for provisions they applied to the Peloponnesians for assistance; but, the new pacha of Salonica coming up with an overpowering force, Cassandra was taken by storm on the 12th of November, and its garrison put to the sword. Mount Athos capitulated soon after.

About the middle of October a deputation from Mount Olympus arrived at Tripolitza, bringing information that 7000 Macedonians were ready to rise there, and requesting cannon, gun-powder, and officers. Two mortars were sent to them, but they were no sooner landed, than the Turks seized them; the insurrection, however, took place, and has ever since continued. In the Peloponnesus nothing vigorous was effected except at Patras and Napoli. After the capitana bey had supplied the fortress on the coast, and added to his own fleet the squadron that had acted against Ali Pacha, he prepared to return to the Dardanelles. On this the siege of Patras was renewed; towards the end of the month it was carried by assault, and the garrison again retired into the citadel; but, on the 15th of November, Yusuff Pacha, who had retired into the castle of the Morea, came up with 400 horse and foot, unperceived by the Greeks, entered the gates, and commenced an attack. The garrison of the citadel sallied out at the same time, and the Christians were routed. Mavrocordato and Caradja with difficulty reached a boat, which conveyed them to Messolonghi; their cannon, baggage, and 1500 muskets were taken

Ipsilanti wished at this time to hasten the siege of Napoli, and colonel Voutier, a French officer, had been making preparations, but they were greatly deficient in means for attacking so strong a place. A report was spread, that it was on the point of capitulating, and not less than

12,000 peasants were attracted to share its spoils. Scaling ladders were provided, and on the 15th of December at night, arrangements having been made, the attack was commenced, but the assailants were completely driven back. After this failure, prince Demetrius went to Argos, and held frequent meetings of deputies, until Mavrocordato arrived, when Ipsilanti's visitors immediately diminished, and a rivalship was evident between these leaders. Ipsilanti, therefore, despairing of carrying his plans into effect, directed his attention to the war, and soon after went to Corinth with Kiamel Bey, by whose influence it was hoped the surrender of that place would be hastened; while, in order to carry on the siege of Napoli without interruption, it was determined that the congress should be removed to Epidaurus.

The assemblage of a congress has been regarded as a new and important era in the Greek Revolution; the anxiety of the nation for the organising of a government was evident from the eagerness with which the people elected the deputies. By the middle of December not less than sixty had arrived, including ecclesiastics, land-owners, merchants, and civilians, most of whom had been liberally educated. They first named a commission to draw up a political code; the rest were occupied in examining the general state of the nation, and laying plans for the next campaign. On the 27th of January, 1822, the independence of the country was proclaimed, and its code published amidst the joyful acclamations of the deputies, the army, and the people. The government was for the present, styled 'provisional,' while the promulgation of the constitution was accompanied with an address, exhibiting the reasons for shaking off the Turkish yoke. Five members of the congress were nominated as an executive, and prince Mavrocordato was appointed president. Ministers were appointed for the different departments of war, finance, public instruction, the interior, and police; and a commission named of three individuals to superintend the naval affairs.

In the mean time the siege of Corinth was vigorously pushed; but so impregnable was this fortress, that every effort was made to induce the garrison, consisting of not more than 600 men, to surrender. For this purpose Kimail Bey, who had fled from Corinth, leaving his family there, was brought from Tripolitza, in the hope that he might use his influence with the garrison. He, however, proved treacherous, and thwarted the design. A new turn was then given to the operations before Corinth by the arrival of Panowria, a popular chief of Salona, who persuaded the Albanian portion of the garrison to capitulate. On their leaving the place, the Turks declared themselves willing to surrender, and it was stipulated that they should lay down their arms, and be transported by the Greeks to the coast of Asia Minor; but, before the last of these conditions could be fulfilled, the peasants, who had suffered much from the oppressions of Kiamil Bey, burst into the place and wreaked their vengeance on many of them. The new government signalised their liberality by a decree for the abolition of slavery, as well as the sale of any Turkish prisoners, who might fall into their hands, prohibiting it under the severest penalties; they also passed another edict for a compensation for military services, and a provision for the widows and orphans of those who should fall in battle; and a third regulating the internal administration of the provinces. The organisation of the army was also commenced; a corps called the first regiment of the line was formed and officered from the volunteers of different nations, and, as there were more of them than were requisite for this service, a second was formed of the remainder, which took the name of Philhellenes. Patras was blockaded again by 3000 men, and a smaller body under the French colonel Voutier was sent to Athens, to reduce the acropolis; the forces before Napoli were augmented, and Modon and Coron closely invested by the armed peasantry around.

An event, the most terrific and atrocious that history has ever recorded, marked the commencement of the second campaign: the destruction of Scio, and its miserable inhabitants. The Sciots had taken no part in the movement of 1821. In the beginning of May, in that year, a small squadron of Ipsariots appearing off the coast furnished the aga with a pretext for his oppressions, and he began by seizing forty of the elders and bishops; who were immured as hostages for the good conduct of the people.

'On the 23d of April,' says Mr. Blaquiere, 'a fleet of fifty sail, including five of the line, anchored in the bay, and immediately began to bombard the town, while several thousand troops were landed under the guns of the citadel, which also opened a heavy fire on the Greeks. It was in vain for the islanders to make any resistance: deserted by the Samians, most of whom embarked and sailed away when the Turkish fleet hove in sight, they were easily overpowered, and obliged to fly. From this moment, until the last direful act, Scio, lately so great an object of admiration to strangers, presented one continued scene of horror and dismay. Having massacred every soul, whether men, women, or children, whom they found in the town, the Turks first plundered and then set fire to it, and watched the flames until not a house was left, except those of the foreign consuls. Three days had, however, been suffered to pass, before the infidels ventured to penetrate into the interior of the island, and even then their excesses were confined to the low grounds. While some were occupied in plundering the villas of rich merchants, and others setting fire to the villages, the air was rent with the mingled groans of men, women, and children, who were falling under the swords and daggers of the infidels. The only exception made during the massacre was in favor of young women and boys, who were preserved to be afterwards sold as slaves. Many of the former, whose husbands had been butchered, were running to and fro frantic, with torn garments and dishevelled hair, pressing their trembling infants to their breasts, and seeking death as a relief from the still greater calamities that awaited them.

'Above 40,000 of both sexes had already either fallen victims to the sword, or been selected for sale in the bazaars, when it occurred to the pacha, that no time should be lost in persuad-

ing those who had fled to the more inaccessible parts of the island to lay down their arms and submit. It being impossible to effect this by force, they had recourse to a favorite expedient with Mussulmans; that of proclaiming an amnesty. In order that no doubt should be entertained of their sincerity, the foreign consuls, more particularly those of England, France, and Austria, were called upon to guarantee the promises of the Turks: they accordingly went forth, and invited the unfortunate peasantry to give up their arms and return. Notwithstanding their long experience of Turkish perfidy, the solemn pledge given by the consuls at length prevailed, and many thousands, who might have successfully resisted until succours arrived, were sacrificed: for no sooner did they descend from the heights, and give up their arms, than the infidels, totally unmindful of the proffered pardon, put them to death without mercy. The number of persons of every age and sex who became the victims of this perfidious act was estimated at 7000.

'After having devoted ten days to the work of slaughter, it was natural to suppose that the monsters who directed this frightful tragedy would have been in some degree satiated by the blood of so many innocent victims; but it was when the excesses had begun to diminish, on the part of the soldiery, that fresh scenes of horror were exhibited on board the fleet, and in the citadel. In addition to the women and children embarked for the purpose of being conveyed to the markets of Constantinople and Smyrna, several hundreds of the natives were also seized, and, among these, all the gardeners of the island, who were supposed to know where the treasures of their employers had been concealed. There were no less than 500 of the persons thus collected hung on board the different ships; when these executions commenced, they served as a signal to the commandant of the citadel, who immediately followed the example, by suspending the whole of the hostages, to the number of seventy-six, on gibbets erected for the occasion. With respect to the numbers who were either killed or consigned to slavery, during the three weeks that followed the arrival of the capitan pacha, there is no exaggeration in placing the former at 25,000 souls. It has been ascertained that above 30,000 women and children were condemned to slavery, while the fate of those who escaped was scarcely less calamitous. Though many contrived to get off in open boats, or such other vessels as they could procure, thousands, who were unable to do so, wandered about the mountains, or concealed themselves in caves, without food or clothing for many days after the massacre had begun to subside on the plains. Among those who had availed themselves of the pretended amnesty, many families took refuge in the houses of the consuls, who were indeed bound by every tie of honor, and humanity, to afford them protection. It has, however, been asserted, upon authority which cannot well be doubted, that the wretched beings thus saved from Mussulman vengeance, were obliged to pay large ransoms before they could leave the island. Nay more, numbers of those who escaped the massacre, affirm, that it was extremely difficult to obtain even temporary protection under the Christian flags, without first gratifying the avaricious demands of those who conceived this appalling event a legitimate object of mercantile speculation.'

At the commencement of the campaign Colocotroni with 300 men was despatched to Patras, where a part of the Turkish fleet had landed a great body of men in the latter end of February. On his approach the Turks went to meet him with almost all their force. Colocotroni, not considering himself strong enough for them, retreated to the mountains; but suddenly stopped, addressed his men, and wheeling about advanced towards the enemy. Upon this the Turks, struck with a panic, thinking he had received notice of a reinforcement, turned their backs and were pursued by the Greeks up to the walls of the town; 500 of them were slain in less than two hours, and Colocotroni blockaded the place. The Ottoman fleet was pursued by the Greeks under Mianli and Tombasi, and the admiral's frigate nearly fell into the hands of the Greeks. Marco Bozzaris and Rango gained many advantages in Epirus, and took Arta, the key of Albania; but, owing to the treachery of Tairabos, it was abandoned. Odysseus and his companions endeavoured to check the enemy in Livadia and Negropont; but the disaster of the Greeks at Cassandra so much strengthened them, that they advanced again and threw some reinforcements into Athens.

The fall of Ali Pacha had now so much increased the resources of Choursid, that he concerted measures, which would have been the destruction of the Greek cause, had they been skilfully executed. Mavrocordato, in order to frustrate them, laid a plan to undertake an expedition into Epirus, draw off the Turks from the Morea, relieve the Souliotes, and carry the war into the heart of Albania. He communicated his plan to the executive, and it was determined to place 5000 men at the disposal of the president, who was to lead the expedition in person. The only forces, however, which could be mustered, were the corps of the Philhellenes, and the first regiment of the line, neither of them complete, with 700 men commanded by general Norman and Kiriakouli, to relieve the Souliotes. He arrived at Patras on the 12th of June; but Colocotroni here opposed many difficulties to any of his troops being detached, and he was obliged to leave without the expected assistance. Accordingly he sailed to Messolonghi with only a few hundred men. A large force of the enemy was in the mean time collected at Larissa and Zetonni; Colocotroni suddenly left the blockade of Patras and proceeded with all his army to Tripolitza, leaving an opportunity for the Turkish garrison either to enter the Morea, or cross the Lepanto. Consternation prevailed in the Peloponnesus; Corinth was abandoned and re-occupied by the enemy, not without the suspicion of treachery.

The situation of Ipsilanti was at this time very critical, he had no money or provisions, and hardly 1300 men to oppose to 30,000; he therefore, in order to stop the enemy's progress, threw

himself into the citadel of Argos, while Colocotroni took up the strong position of Lerno on the west of the gulf. The first body of the Turks, consisting of 7000 cavalry and 4000 foot, halted near Argos, and part of it proceeded to Napoli; soon after Marchmout Pacha arrived with 10,000 more. The Pacha, however, entered Napoli, and continued several days inactive; when, threatened with the extremities of famine and drought, he gave orders for the return to Corinth, and his army set out in the greatest disorder. Colocotroni attacked and destroyed 5000 of them in a few hours; the advanced guard was attacked in the defiles by the Maïniotes under Nikitas, and 1200 perished in the first onset. These successes happened between the 4th and 7th of August. On the 18th the Pacha attempted to draw the Greeks into an ambuscade, but they got into his rear and he was defeated with great loss; the next day, determining to regain the position they had lost, the Turks again attacked under Hadji Ali, who was slain in the engagement, and nearly 2000 of his men were lost, as well as a large quantity of baggage and several hundred horses. The Greeks, however, had no means of following up their successes.

Ipsilanti advanced to Napoli to assist in its reduction, while the troops left under the command of Coliopulo, not being supplied with rations or pay, became so weary of the service that the greater part withdrew, leaving Colocotroni's eldest son, with 200 or 300 men to continue the blockade of Corinth. Soon after this Colocotroni, at the passes near the isthmus, stopped the Turks who wished to bring succours to Napoli; and they being driven to the greatest extremity of famine, and the Palamida or citadel having been surprised, the garrison had no alternative left them but to surrender. The Greeks took possession of this important place on the 11th of January. The Turkish commanders, on the surrender of Napoli, determined to proceed to Patras, which the Greeks had lately neglected blockading. Setting out in the middle of January, they had reached Akrata near Vostitza, when a detachment from Messolonghi stopped one of the passes, and shortly after another body blocked up the other; so that the Turks were reduced to the greatest straits, feeding upon horses, the herbs on the rocks, their saddles, and at last one another. For nearly three weeks longer the place held out, when Odysseus arriving, and on one of the beys being acquainted with him, a negociation was commenced, by which the garrison obtained permission to embark, and the beys were sent prisoners to Napoli. The number of the enemy that perished on this occasion without firing a shot amounted, it is said, to 2000. Thus ended the second campaign in the Morea, costing the Turks not fewer than 25,000 men in the Peloponnesus alone.

The operations in Epirus, though on a smaller scale, were little less interesting. Mavrocordato put his forces in motion, and first making a feint, as if he wished to reach Salona, returned on the village of Therasova and entered Messolonghi on the 17th of October, where greater difficulties than ever awaited him. Here he was besieged by the Turks, until the 9th of November, when the blockading squadron was chased away by six vessels bearing the Greek flag; and on the 14th Mavromichalis arrived with the long expected succours; a sortie was then made. But it was of little avail, and the garrison was so much weakened, that Omer Vrioni determined to attack the place. Accordingly on the morning of Christmas-day, at five o'clock, 800 men approached the walls with scaling ladders unperceived, and had even fixed some, but they were instantly cut down; the conflict that followed was desperate and sanguinary, and the Turks were obliged to retire with the loss of 1200 men and nine pieces of colors. The rising now became general through the country, and the retreat of the enemy was intercepted in all quarters; so that of the whole force brought into the country, only three months before, not half escaped. Mavrocordato arrived in the Peloponnesus in the early part of April 1823, after an absence of ten months.

The national congress met at Astros, a small town in Argos, on the 10th of April, 1823, in a garden under the shade of orange trees; nearly 300 deputies were occupied in the debates, which began at sun-rise. The following oath was taken at the first meeting by each member:—'I swear, in the name of God and my country, to act with a pure and unshaken patriotism, to promote a sincere union, and abjure every thought of personal interest in all the discussions which shall take place in this second national congress.' Having settled a number of important points, its labors ended on the 30th. The third meeting of the congress was deferred for two years; and the executive and legislative body was transferred to Tripolitza, where measures were immediately taken for opening the third campaign.

The enemy was not idle as the summer advanced; a fleet of seventeen frigates, and sixty smaller vessels, was sent with stores to supply the remaining fortresses in Negropont, Candia, and the Morea; and, after accomplishing this object, the capitan pacha arrived at Patras about the middle of June. Yusuff pacha led on a large body to Thermopylæ, and Mustapha conducted another to the pass of Neopatra, near Zeitouni, the former especially laying waste the whole country, and committing all manner of excesses. Odysseus in the mean time arrived from Athens, and Nikitas from Tripolitza, and a sort of guerrilla warfare was commenced, which so harassed the Turks under Yusuff that they retreated in the greatest disorder. Mustapha was attacked, and forced to take refuge in Negropont at Carystos, where he was closely blockaded. Marco Botzaris, who commanded the Greeks at Crionero, fell on the Turks, and either killed or captured two-thirds of their number. The same brave leader undertook a forced march against Mustapha, who had 14,000 men, while he had only 2000. On assigning each man's part at midnight on the 19th, his last words were, 'If you lose sight of me during the combat, seek me in the pacha's tent.' On his arrival at the centre, he sounded his bugle, as agreed upon, and the enemy, panic-struck, fled in all directions. In the midst of the attack, which was

now general, he was twice wounded, and at last carried off from the field expiring; the struggle, however, was maintained till day-light, when the Greeks were victorious on all points, and the loss of the enemy was not less than 3000. One of the first acts of the capitan pacha, on his arrival with his fleet, had been to declare Messolonghi, and every other Greek port in a state of blockade. The entrance of a few Greek gun-boats, however, was sufficient to set the capitan pacha at defiance; having remained inactive for above three months, and lost nearly a third of his crews by epidemics, he at length made the best of his way to the Archipelago.

At the commencement of the year 1824 proclamation was issued by the president and senate of the United States of the Ionian Islands, declaring their neutrality, and their firm resolution not to take any part in the contest; also prohibiting any foreigner, who should do so, from residing in the Islands. Among the Greeks dissentions still prevailed, every faction following its own plans, and seeking to advance its own influence. Mavrocordato, Colocotroni, and Ipsilanti, headed different factions, among the members of which there was neither unanimity of counsel, nor uniformity in action.

The Turkish fleet sailed on the 23d of April. The Greek senate summoned Colocotroni to surrender himself, and to deliver up Napoli and Tripolitza, but he refused; the troops that were investing Patras quarrelled about the division of some of their booty, and were withdrawn; in the mean time the Turks sailed from Lepanto with fourteen ships, and blockaded Messolonghi. In order to encourage the Greeks a loan of £800,000 was contracted for in London. About this period Ipsarta was threatened by the Turkish fleet, which was now at Mitylene. The island of Caso was attacked on the 8th of June by an Egyptian squadron, and after an obstinate resistance was taken on the 9th; 400 died with arms in their hands, the rest took refuge in the mountains, leaving behind most of the women and children, who fell a prey to the Turks. On the 3d of July the capitan pacha again attacked Ipsara, having previously gained over the Schypetars, who garrisoned the principal forts. The first victims that fell by the swords of the invaders were the treacherous Schypetars.

The triumph of the Turks, however, was but short; the Ipsariots sent most of their wives and children to Syra. One of the forts was garrisoned by sixty men, and surrounded by mines. A Greek named Maroaki, finding himself unable to keep the place hoisted a flag, with the words, 'liberty or death,' and blew up the fort destroying 1200 Turks. The Ipsariots then returned upon the Turks, and took seventy gun-boats.

In Thessaly several Mussulman corps were attacked in the month of June, and defeated by the Greeks.

The long delay in paying the loan in London at this time threatened Greece with a total want of funds; the government, however, found means to fit out two flects; the first drove away the Egyptian squadron, recaptured Casa, and destroyed the Turkish troops in the island; the other, by the brilliant success it obtained, repaired the fortunes of Ipsara.

While the Egyptian fleet was cruising between Moeri and Rhodes, the capitan pacha was preparing for a descent on Samos, where there was a small Greek squadron under the command of Georgius Tactouri. He made two attacks without success; and on the 16th of August approached with all his force; but the Turks were thrown into disorder by the Hydriots and Spezziots, and the troops collected on the opposite hills of Asia Minor witnessed the entire discomfiture of their fleet.

The Greek cause now continued to prosper. Daily successes were obtained in the west, over the remains of Derrish Pacha's army. Athens was in a good state of defence, the garrison continually making sallies against the Turks, who were besieging them: and though new levies were made by the Turks, the commanders complained, that the recruits were continually leaving the service.

Partial actions took place on the 5th and 9th of September, between the Turkisn and Greek fleets, and on the 10th an action ensued between the Greeks and the united fleets of Turkey and Egypt, when the former burned a frigate, a corvette, and two brigs, and took sixteen transports. After this another action took place at Patmos, in which the Greeks burned two frigates and four brigs, and took prisoner Ismael Gibraltar, the Tripolitan commander, and the brother-in-law of the pacha of Egypt. The Turks offered 200,000 piastres for his ransom, but Miaoulis demanded eight frigates, and whatever Gibraltar had under his command. The combined fleets were pursued to the Dardanelles.

On the 18th of April, this year, lord Byron died at Messolonghi, of an inflammatory fever, after having zealously devoted himself to the cause of the Greeks from the time he first landed in August, 1823, up to the period of his death We have not referred to these exertions in the preceding narrative, having given a very full account of them under the article Byron, which see. But one of the great topics of his lordship's anxiety, the divisions among the Greek leaders, has continued to this day deeply to injure their cause.

Instead of spending the winter, now drawing on, in preparations for the approaching campaign, they seemed almost wholly taken up with their internal dissentions. The people of the Morea broke out into an open insurrection, at the head of which were Colocotroni and his sons, Niketas, and others. They attempted the capture of Napoli; after some bloodshed, however, by the end of the year, the rebellion was quelled.

The porte, on the other hand, was very active in its preparations, and the troops of Mahomet Ali, pacha of Egypt, were directed to land in great force upon the Morea: and it now became evident, that the neighbourhood of Navarino was destined to be the seat of war; the Greek troops were drawn off from Patras, to march southward; while Conduriottis, the commander-in-chief, and prince Mavrocordato, were preparing to set off with fresh troops, Ibrahim received reinforcements from Candia, which made his force 15,000 strong, and a battery was immediately erected against Neo-Castro, or Navarino. Conduriottis had assembled about 6000

men at Cremidi, about the middle of April; but on the 19th Ibrahim attacked and routed all the troops which he had been able to collect.

On the 1st of May the Egyptian fleet, from sixty-five to seventy sail, left the port of Suda, where it had been watched by a Greek squadron under Miaoulis. Miaoulis sailed to Navarino, and sent in seven vessels, of which Isammados was to take the command. On the 8th Miaoulis's squadron, amounting to twenty-two vessels, was near Yante; the Egyptian fleet, forty-six in number being off Sphacteria, and Tsammados's eight vessels inside the harbour. In about an hour from 2000 to 3000 troops effected a debarkation from the Egyptian fleet, on the island. The garrison of Old Navarino capitulated on the 10th, and the garrison of Navarino, on the 23d, marched out, leaving water for four days and bread for ten.

After the surrender of Sphacteria, a great part of the Egyptian fleet was followed by Miaoulis into the harbour of Modon, and more than half of it destroyed by fire-ships.

A body of Greeks was now defeated by part of Ibrahim's army at Mount Aghiaon, which overloooks the town of Arcadia, anciently Cyparessus, and he himself took possession of Calamata. He then proceeded into the interior, and, having met with a loss in the mountains from the division under Colocotroni (restored to command by the Greek government), he took up his position on the 20th at Tripolitza, which was half in ruins, and soon after made his appearance before Napoli di Romania. Having made several attacks without success, and failing in his design of surprising the town, he retreated. The Turks also about this time made a descent from Epirus and Thessaly, upon the shores of the Corinthian Gulf, and seized Salona, while Redschid Pacha appeared before Messolonghi.

In the end of May the Turkish admiral left the Dardanelles, and on the 1st of June was encountered by the Hydriote Sakhturi, who, by means of his fireships, destroyed three men of war and some transports. Soon after the capitan pacha entered Suda, and joined the Egyptian fleet from Navarino, at the expense of three fire-ships. The Greek fleet was dispersed by a tempest, and, having no fire-ships, they retired to Hydra, while the Turkish admiral landed a reinforcement of 5000 men at Navarino, and went to Messolonghi with seven frigates and many smaller vessels. The siege was now vigorously pressed; the Lagune was penetrated on the 21st of July, and Anatolico, an island to the north, surrendered to the Turks. The supply of water was now cut off, batteries had been erected near the main works of the place, the ramparts had been injured, and part of the ditches filled up; at length a general attack was ordered on the 1st of August, and the town assailed in four places at once. The Turks were every where repulsed. On the 3d the Greek fleet, consisting of twenty-five brigs, attacked and destroyed two small ships of war and all the boats in the Lagune, relieved Messolonghi, and obliged the enemy's fleet to retire. On the 20th the fleet of the Greeks, about thirty sail, commanded by Miaoulis, engaged the Turks between Zante, Cephalonia, and Chiarenza, and an action ensued, which lasted with little intermission for two days and nights, when, the wind, blowing hard from the eastward, the Greeks were obliged to retire. On the 29th another naval action took place, and skirmishes on the two next days, when at length, on the 2d of December, the Greeks forced the enemy to take shelter in the Gulf. On the 10th of August preceding, the Greeks had attempted, but without success, to burn the Turkish fleet in the port of Alexandria.

During the year 1826 the affairs of the Greeks began to wear a much more discouraging aspect. After a lengthened blockade, in which every effort was made by the Greeks to defend it, and every privation endured, the important fortress of Messolonghi was, towards the autumn of this year, taken by assault and sacked by the Turks.

One of the most remarkable and disastrous events of this year (1827) has been the capture of Athens, the news of which arrived while we were writing this article. It was taken in the month of May by the Turks under Kiutaki, not long after the arrival of the gallant lord Cochrane in its neighbourhood, with a considerable naval force. The loss of the Greeks on this occasion amounted to 700 men killed on the field of battle, and 240 taken prisoners, including eighteen Philhellenians of different countries. Kiutaki, supposing that lord Cochrane and general Church were among the Europeans, had the prisoners brought before him, and, after examining them carefully, caused the eighteen Europeans to be poniarded before his eyes. He afterwards ordered the 222 Greeks to be massacred; and, if he manifested any degree of clemency at the taking of the city, it was forced on him by the presence of the English and French ships of war.

Ibrahim has resumed his excursions, but he is suffering from want of provisions, and no supplies can reach him while the Greek fleet is cruising off the coast.

In the public papers appears this day (July 13th), a most important treaty between Great Britain, France, and Russia, destined, we trust to close the sufferings of the Greeks. It binds the high contracting powers to put an end to the war, and virtually to establish the independence of Greece, with the exception of a tribute and a nominal suzerainship being given to Turkey.

GREE'DY, *adj* } Sax. ȝræðiȝ; Gothic
GREE'DINESS, *n. s.* } *gradag*; Belgic *gretig*.
GREE'DILY, *adv.* } Ravenous; voracious, either in appetite or desire; eager: it is a word which simply expresses a strong and vehement desire of possession.

As a lion that is *greedy* of his prey. *Ps.* xvii. 12.

Be not unsatiable in any dainty thing, nor too *greedy* upon meats. *Ecclus.* xxxvii. 29.

Who so ytoke a wethers skinne,
And wrapped a *gredy* woulfe therinne,
For he should go with lambes white,
Wenest thou not he would hem bite.
Chaucer. Romaunt of the Rose.

Soche *gredinesse* him assaileth,
That whan he moste hath, moste he faileth. *Ia.*

Thither with all *greediness* of affection are they gone, and there they intend to sup. *Shakspeare.*

If thou wert the wolf, thy *greediness* would afflict thee. *Shakspeare. Timon.*

Greedy to know, as is the mind of man,
Their cause of death, swift to the fire she ran.
Fairfax.

He made the *greedy* ravens to be Elias's caterers, and bring him food. *King Charles.*

He swallowed it as *greedily*
As parched earth drinks rain. *Denham.*

I with the same *greediness* did seek,
As water when I thirst, to swallow Greek. *Id.*

Greedily she engorged without restraint. *Milton.*

Stern looked the fiend, as frustrate of his will,
Not half sufficed, and *greedy* yet to kill. *Dryden.*

While the reaper fills his *greedy* hands,
And binds the golden sheaves in brittle bands.
Id.

Even deadly plants, and herbs of poisonous juice,
Wild hunger seeks: and, to prolong our breath,
We *greedily* devour our certain death. *Id.*

How fearful would he be of all *greedy* and unjust ways of raising their fortune! *Law.*

Greek Church is that part of the church which is established in Greece, Russia, and various parts of Turkey. It is so called, in contradistinction from the Latin or Romish church; also the Eastern church, in distinction from the Western. The Romanists call the Greek church the Greek schism; because the Greeks do not allow the authority of the pope, but depend wholly, as to matters of religion, on their own patriarchs. They have treated them as schismatics ever since the revolt, as they call it, of the patriarch Photius.

The Greek church may be considered under two main divisions, i. e. that which maintains religious communion with the patriarch of Constantinople, and that which is established under its own synod, bishops, and rulers, in Russia.

The Georgians and Mingrelians also adopt the doctrines and ceremonies of the Greek church; but are independent of all jurisdiction of the Constantinopolitan prelate.

That part of the Greek church connected with the patriarch of Constantinople, is divided, as in the early ages of Christianity, into four large districts or provinces; Constantinople, Alexandria, Antioch, and Jerusalem; over every one of which a bishop presides, who has also the title of patriarch, and whom the inferior bishops and monastic orders unanimously respect as their common father. This prelate has the privilege of nominating other patriarchs, though that dignity still continues elective, and of approving the election that is made; nor is any thing of moment undertaken or transacted in the church without his express permission, or his special order. Indeed, in the present decayed state of the Greek churches, whose revenues are small, and whose former opulence is almost annihilated, their spiritual rulers enjoy little more than the splendid title of patriarchs.

The spiritual jurisdiction and dominion of the patriarch of Constantinople are very extensive, comprehending a considerable part of Greece, the Grecian Isles, Walachia, Moldavia, and several of the European and Asiatic provinces that are subject to the Turks. The patriarch of Alexandria resides generally at Cairo, and exercises his spiritual authority in Egypt, Nubia, Lybia, and a part of Arabia. Damascus is the principal residence of the patriarch of Antioch, whose jurisdiction extends to Mesopotamia, Syria, Cilicia, and other provinces. In Syria there are three bishops who claim the title and dignity of patriarch of Antioch. The first is the bishop of the Melchites, a name given to the Christians in Syria who follow the doctrine, institutions, and worship of the Greek church: the second is the spiritual guide of the Syrian Monophysites; and the third is the chief of the Maronites, who hold communion with the church of Rome.

The patriarch of Jerusalem comprehends, within the bounds of his pontificate, Palestine, Arabia, the country beyond Jordan, Cana in Galilee, and mount Sion.

The episcopal dominions of these three patriarchs are indeed extremely poor and inconsiderable; for the Monophysites have long since assumed the patriarchal seats of Alexandria and Antioch, and have deprived the Greek churches of the greatest part of their members in all those places where they gained an ascendant. And as Jerusalem is the resort of Christians of every sect, who have their respective bishops and rulers, the jurisdiction of the Grecian patriarch is consequently confined there within narrow limits.

The right of electing the patriarch of Constantinople is vested in the twelve bishops who reside nearest that famous capital; but the right of confirming his election, and of enabling the new chosen patriarch to exercise his spiritual functions, belongs only to the Turkish emperor. But this institution is subject to the grossest perversion and abuse by the corruption and avarice of the reigning ministers. The power of this patriarch among a people dispirited by oppression, and sunk into the grossest superstition by extreme ignorance, must be, and actually is, very considerable and extensive. Besides, his own prerogatives are numerous; for he not only convenes councils by his own authority; but by the special permission of the emperor, he administers justice and takes cognizance of civil causes among the members of his communion. His influence is maintained on the one hand by the authority of the Porte, and on the other by his right of excommunicating the disobedient members of the Greek church. The revenue of this patriarch is drawn particularly from the churches that are subject to his jurisdiction; and its produce varies according to circumstances.

The Greek church acknowledges as the rule of its faith, the Holy Scriptures, and the decrees of the first seven general councils; but no private person has a right to explain, for himself or others, either the declarations of Scripture, or the decisions of these councils; the patriarch and his brethren being the only persons who are authorised to consult these oracles, and to declare their meaning. The Nicene and the Athanasian creeds are allowed by them, and they hold the doctrine of the Trinity, but with this qualification, that the Holy Ghost proceeds from the Father only, and not from the Father and the Son. The invocation of saints is

alike received in the Greek and Roman communion. The Greek church admits the use of pictures to instruct the ignorant, and to assist the devotion of others by those sensible representations. In the Greek church there are seven mysteries, or sacraments, as they are called in the Latin church, viz. baptism, the chrism, or baptismal unction, the eucharist, confession, ordination, marriage, and the holy oil or extreme unction. As to baptism, they practise the trine immersion. Chrism is called the unction with ointment, and extreme unction is called the consecration with holy oil. The chrism is a mystery peculiar to the Greek communion, and holds the place of confirmation in the Roman. It immediately follows the immersion at baptism, when the priest anoints the person baptised on the principal parts of the body with an ointment, consecrated with many curious circumstances for that purpose by a bishop; this ceremony is always used at the reception of a proselyte from any other church. Children immediately after baptism may receive the communion. Predestination is a dogma of the Greek church, and a very prevailing opinion among the people of Russia. The Greek church admits prayers and services for the dead as an ancient and pious custom, and even prayers for the remission of their sins; but it disallows the doctrine of purgatory, and determines nothing dogmatically concerning the state and condition of departed souls. It also pays a regard to the relics of saints and martyrs of which too superstitious a use is made. Supererogation, indulgencies, and dispensations are utterly disallowed in this church; nor does it affect, like the Latin, the character of infallibility.

The best modern summary of its doctrines and pratices is that published by Platon, late metropolitan of Moscow; and which Mr. Pinkerton some years ago translated. We shall avail ourselves of his labors; and particularly of his description of that most important part of this church, the Greek church of Russia.

On the introduction of Christianity into Russia, the first dignitaries of the church were the metropolitans, who were chosen by the grand princes and the bishops, and ordained by the patriarch of Constantinople. Hence the patriarchs, not unfrequently, without consulting either the Russian princes or clergy, sent them metropolitans and bishops of their own choosing, though the grand princes generally opposed such an infringement on their prerogative, and often sent them back again to Constantinople; and even some of the grand princes, in place of applying to the patriarch, commanded the Russian bishops to ordain their own metropolitans. But, in general, the person chosen to be metropolitan of all Russia, went to Constantinople for ordination; and this usage continued till the taking of that city in 1453 by the Turks, when a final stop was put to the free communication which had so long subsisted between the patriarchs and the Russian church. On this account, Tzar Theodore Ioanovitch, in 1588, appointed his own patriarch in the Russian church; in which appointment the four patriarchs of the east having acquiesced, Jeremias, the patriarch of Constantinople, came into Russia, and ordained Job, the metropolitan of Moscow, patriarch of all Russia, conferring upon him equal authority and powers with the eastern patriarchs. This office lasted till the beginning of the eighteenth century, when the disturbances which had taken place in the preceding reigns between the princes and the patriarchs, induced Peter the Great to abolish this office, in order the better to carry into effect his plans of reformation, both in church and state.

When Peter the Great ascended the throne, the power of the patriarch was almost equal to that of the tzar, after whom he took the first seat, and had a chief voice in all the affairs of the empire, both civil and religious. Without his blessing, neither war was undertaken, nor peace concluded. From these peculiar privileges, and the influence he possessed over the clergy and people, an influence which was oftentimes augmented by his own extensive domains and family connexions, it not unfrequently happened that the patriarch opposed his voice to that of the tzar and nobles, in national affairs of importance, for no other reason but because he had not been previously consulted. On this account, Peter, on the death of the last patriarch, Adrian, in 1700, abolished the patriarchal office, and appointed an exarch, or vicegerent of the Holy See, with limited powers, who could do nothing without the consent of the other bishops, and was obliged to refer all affairs of moment to the decision of the tzar himself.

The person appointed to the exarchy was Stephen, metropolitan of Rezan, under whose presidency the schools of the clergy were much improved, the priests and monks more strictly looked after, and arrangements made for that further reformation in the government of the church which soon followed.

In 1721 Peter abolished the exarchy also, and, in place of it, instituted the Holy Legislative Synod, and furnished it with instructions, for the government of spiritual affairs, under his own particular cognizance. This spiritual council was at first to consist of twelve members, chosen from amongst the Archirès, Archimandrites, and Protoirès; but the number is now indefinite, and the choice and appointment of its members depend entirely on the will of the sovereign.

At the head of the Holy Legislative Synod there is always a *layman*, denominated the Ober Procurator, who is considered as sitting there on the part of the crown, and has a negative on all its resolutions till laid before the emperor.

The Russian clergy are divided into regular and secular. The former are all monks, and the latter are the parochial clergy. The superior clergy are divided into metropolitans, archbishops, and bishops, who are indiscriminately styled Archirès; but the title of metropolitan or bishop is merely personal, and not properly attached to the see; and, though there is some difference among the superior clergy in denomination, rank, and dress, yet it scarcely ever happens that one archirè is subordinate to another.

Before the time of Peter the Great the bishops were absolute in their own dioceses; and

though, at consecration, they took a general oath to walk in the spirit of their office, according to the Holy Scriptures and councils of the fathers, yet Peter found it necessary, in 1716, to make their duties and obligations more clear and specific, as the moral conduct of many of them was highly unworthy their sacred office, and others were remiss in the performance of their spiritual duties.

Promotion to the rank of bishop depends entirely on the will of the sovereign. When a vacancy takes place in a diocese, the holy legislative synod presents to his imperial majesty two or three candidates from among the eldest of the archimandrites, or chiefs of monasteries, out of whom he selects one, and orders him to be ordained an archirè; though he is not restricted in his choice to any of the candidates brought forward by the holy synod. Thus, the metropolitans, archbishops, and bishops, compose the highest class of the Russian clergy; of whom the greater part in the present day are men of learning, and many of them possessed of distinguished abilities, whose theological writings, especially of late years, have done honor to their profession and country; but, unfortunately for their literary reputation, they write in a language which is unknown to the other nations of Europe.

After the archirès, the next in order of dignity are those who in Russia are called tschornoe duhovenstvo, or the black clergy, to which class belong the archimandrites, or chiefs of monasteries, from amongst whom the bishops are always chosen; the hegumins, chiefs of small convents, of which they have the direction; ieromonachs, and ierodiacons, who perform divine service in the monasteries; and last of all the monks.

All the black clergy, and also the archirès, according to the regulations of the Greek church, are obliged to lead rigid and recluse lives; are forbidden animal food; and are not permitted to marry, after entering into this order. They compose the regular clergy, and consider themselves as superior to the secular priests, in respect both of rank and learning; for the whole powers and dignities of the Russian church are exclusively vested in them.

The secular priests are called beloe duhovenstvo, or the white clergy, and consist of protoirès, or, as they were formerly called, protopopes, priests, and deacons, together with the readers and sacristans. According to the statement published by the Holy Synod in 1805, the number of protoirès, priests, and deacons, in actual employ was 44,487; and of readers and sacristans, 54,239; in all 98,726.

The protoirès, priests, and deacons, must all have been educated in the spiritual schools, and must be married before they can be ordained to these offices; but are restricted from marrying widows. The death of their wives, however, does not now prevent them, as formerly, from officiating as priests, though they are not allowed to marry a second time. But they are at liberty to enter into the order of the black clergy, by becoming monks; and thus the way is open before them to the first dignities of the Russian church. Those, again, who desire to marry a second time, must first resign their office in the priesthood, and are for ever excluded from that order.

The duties of a secular priest in Russia are peculiarly laborious. The service of the church which must regularly be performed three times a day, and which, from its excessive length, is evidently of monastic origin, and only adapted for such as are entirely withdrawn from the world, together with the numerous and complicated ceremonies attending the administration of baptism, marriage, burial of the dead, visiting of the sick, &c., occupy the greater part of his time, and leave him but little leisure for study. To this cause, in part, must probably be attributed that want of zeal and activity in advancing the true interests of religion and morality, which, in general, forms such a conspicuous feature in the character of the Russian clergy. Perhaps their being, as it were, a distinct tribe, tends also greatly to produce this general characteristic; for, since the time of Peter the Great, who, in order to reform the irregularities which then existed among the clergy, ordered them all to be registered, and obliged them to send their sons to the spiritual schools, to receive a suitable education for the ministry, none have been admitted to the offices of secular priests, but the sons of the clergy. Hence, many thousands of these men have entered into the priestly order, not from choice, but from necessity. It is but justice, however, to add, that many of the secular priests are learned and worthy characters, who diligently perform the duties of their office, and spend their days in promoting the spiritual interests of the flocks committed to their charge. Nor is it unworthy of remark, that the Russians of all ranks are in general void of that persecuting rancor against other religious persuasions, which is so characteristic of Roman Catholics: and, though they adhere strictly to the doctrines and ceremonies of their own church, yet not only the laity, but even the clergy, are far from thinking that there is no salvation without her pale. In most of the churches now, both in towns and villages, a sermon is preached every Sunday, and on the chief holidays. Some of these discourses, which are delivered in different parts of the empire, for sound reasoning and clear views of the leading doctrines of the gospel, might have done honor to a British clergyman In some of the churches, may also be heard a homily read by the priest from a printed book, a practice which is not unfrequent in the country, particularly in large congregations, where the duties of a priest leave him but little time for study.

Among the peculiar privileges of the clergy, may be mentioned their complete exemption from all civil taxes. They are also exempted from corporal punishment, even in the case of committing capital crimes: and, according to an ukaz of 1801, they are permitted to hold lands. The greater part of their support is derived from the free-will offerings of their parishioners, and their revenues are comparatively small. With the view of adding to their respectability, and exciting them to diligence in their sacred calling, the emperor Paul began to bestow upon the superior clergy the orders of knighthood; and, in 1797, he appointed golden crosses to be made

for the secular priests, to be worn suspended from their necks, together with mitres like those of the archimandrites, and other marks of distinction in dress. These he bestowed on such of them as distinguished themselves in their holy calling.

This emperor, also, in order that the country clergy might have more time to attend to their spiritual duties, commanded that their fields should be cultivated by the peasants belonging to their respective parishes; a regulation, however, which has since been laid aside.

The whole Russian empire is divided into thirty-six dioceses or eparchies, which, in extent, are nearly the same with the divisions of the empire into provinces, or governments. In these there are 483 cathedrals, and 26,598 churches, which are, in general, magnificent buildings. Formerly many of them were of wood, but now they are mostly built of brick; and comparatively few of the wooden churches remain. A foreigner, in particular, is forcibly struck with the elegance of these fine edifices, raising their gilded spires amidst the humble izbas, or huts of the peasantry. Some of the churches are large square buildings, but the most of them are built in the form of a cross. In general, they have five domes, with crosses, which, in monasteries and cathedrals, and even in some parish churches, are gilded, and have a splendid appearance. Adjoining to the church, or near to it, there is always a steeple or belfry, commonly of great height, provided with large bells; and, like the churches, overloaded with decorations.

The church is divided into three parts; first, the sanctum sanctorum, called the altar, and into which females are not permitted to enter. In the middle of the altar stands the holy table, upon which a golden or silver cross, and a richly ornamented copy of the Gospels, are always laid. This part of the church is the east end, so that the congregation always worship with their faces towards the rising sun.

The altar is separated from the nave or body of the church, by a screen, upon which pictures of our Saviour, the Virgin, the Apostles, and Saints, are always painted. This screen is called the ikonostas, in the middle of which are the royal doors, which are opened at different times in the course of the service. Upon a platform before the ikonostas, raised several steps, the readers and singers stand behind a low rail, to separate them from the congregation; and, in the middle, before the royal doors most of the service is performed.

The second division is the nave or body of the church, which properly may be styled the inner court, where the congregation stand; for there are no seats in the Russian churches, neither do the congregation make any use of books. In some of the new churches in Petersburg and Moscow there are pulpits erected to elevate the speaker; but they are unknown in the churches in other parts of the empire, in which the preacher, while delivering his discourse, usually stands before the royal doors, behind a moveable desk.

The third division is called the trapeza, which is the west end of the church, and may properly be denominated the outer court. This part is usually as large as the inner court, where the congregation assembles; but, on holidays, both these divisions are generally filled with the worshippers.

The inner walls and domes of the churches are covered with scriptural paintings, which in general represent the most interesting scenes of our Saviour's history. The ikonostas is always richly gilded and ornamented, and the pictures of the saints adorned with gold and silver, pearls, and precious stones.

The service of the church is contained in upwards of twenty volumes folio, all in the Slavonian language, which, though the ancient language of the country, is not well understood by the greater part of the modern Russians. Twelve of these volumes, one for every month, contain the particular services and hymns for the festivals of the saints, who are so numerous in the Greek kalendar, that there are more of them than there are days in the year. These twelve volumes are called the Minœon. The Octoechos compose two volumes, and are divided into eight voices or tones, each of which contains hymns for the days of one week, that are mixed in the service according to the subjects to which the days of the week are appropriated. Thus, Sunday to the resurrection; Monday to the angels; Tuesday to John the Baptist; Wednesday to the Virgin; Thursday to the apostles; Friday to the passion of Christ; and Saturday to the saints and martyrs. To these two there is a supplementary volume, containing hymns, to supply the deficiency in the Minœon. The Psalter and the Hours take up another volume. The Book of Psalms is divided into twenty parts, one of which is read at a service; so that the whole is read through in the course of a week. The Book of Prayer contains the ordinary daily prayers and ectinias for the priest and deacon, in the vespers, matins, and communion service. The Fast Triods are two volumes, which contain particular services for the great fast before Easter, and for the days of Pentecost, when the hymns in the Octoechos are discontinued. The four Gospels compose another volume, a portion of which is read at every service. The Book of Offices contains the rites of baptism, marriage, burial service, &c. And, lastly, the Book of Regulation, which contains directions how to use the rest

The lives of the saints are contained in several folio volumes, which are not now read in churches, but are sometimes read in monasteries, at the matins or morning service.

The Russians make no use of a complete copy of the Bible in their churches; they have only extracts from the Old Testament and the Epistles, interspersed throughout the Minœon and Octoechos; and even many of the clergy in the country do not possess an entire copy of the Scriptures. Both in monasteries and parish churches the service is performed three times a day. It begins in the evening of the preceding day, as among the Jews; the vespers at sunset; the matins between four and five in the morning; and the liturgy or communion service between

nine and ten. The greater part of the service consists of psalms and hymns, which, according to the regulation, ought to be sung, but are now mostly read. The length of the service, also, has given rise to the unintelligible manner in which most of it is now performed; for the priests and readers, in order to get the more quickly through it, have fallen into the practice of repeating and reading the hymns and prayers so quickly, and in such a tone of voice, as renders the greater part of them impossible to be understood by the congregation. The Gospel, however, is always read slowly, and in a distinct and audible voice; so that it is much more intelligible, from being thus read, than many other parts of the service.

Our limits forbid us to extract several able passages from Platon's 'Orthodox Doctrine,' which we had marked with that view. We can only take the following:—

Of the death of Christ, he says, 'The death of Christ is the true sacrifice. A sacrifice, because Christ offered up himself upon the altar of the cross, as an innocent lamb, slain by the justice of God, and consumed by the fire of love, with which he burned for the salvation of mankind; and his being thus consumed was a spectacle no less wonderful in itself, than acceptable to God, the Father.

'Christ was also the true sacrifice; for all the other sacrifices were nothing, but a kind of types or images of this; and it alone was capable of satisfying divine justice, meriting for us God's mercy, cleansing us from our sins, and of restoring us to our original state of blessedness. The word of God bears testimony to this; 'But Christ being come an high priest of good things to come, by a greater and more perfect tabernacle, not made with hands, that is to say, not of this building; neither by the blood of goats and calves, but by his own blood, he entered in once into the holy place, having obtained eternal redemption for us. For if the blood of bulls and of goats, and the ashes of an heifer, sprinkling the unclean, sanctifieth to the purifying of the flesh; how much more shall the blood of Christ, who, through the eternal Spirit, offered himself without spot to God, purge your conscience from dead works, to serve the living God!' Heb. ix. 11, 12, 13, 14.

'This sacrifice put an end to the sacrifices of Aaron or of the Old Testament, and Christ became the only and eternal priest. The only priest, because another sacrifice is impossible; the eternal priest, for, according to the words of the apostle, 'He continueth ever, hath an unchangeable priesthood; wherefore he is able also to save them to the uttermost that come unto God by him, seeing he ever liveth to make intercession for them.' Heb. vii. 24, 25.

'This great high priest is called of God a priest not after the order of Aaron, but after the order of Melchisedec. Heb. v. 10. Now in this there is a great mystery; in which every one must be astonished to behold revealed three of God's excellencies, mercy, justice, and infinite wisdom. Mercy so great, that the only begotten Son of God, of the same essence with the Father, was delivered up unto death for us the enemies of God. Can there be a greater display of mercy? Justice so holy and inviolable, that, without a complete satisfaction, it could not clear us of guilt. Infinite wisdom, that devised such a wonderful plan, not only to satisfy justice, but to pour upon us the whole fountain of goodness. O the depth of the riches both of the wisdom and knowledge of God! This most exalted mystery is to the Jews a stumbling block, and to the Greeks foolishness; but to us, who are thereby saved, it is the power of God and the wisdom of God: and we, with Paul, will declare, 'God forbid that we should glory, save in the cross of our Lord Jesus Christ;' Gal. vi. 14.

'*Of faith in Christ.*—'Verily, Christ died for all.' 2 Cor. v. 15. And there is no one so great a sinner whom his grace alone is not able to save. But, in order that this grace may become effectual in us, faith is requisite, that is, we must heartily receive Jesus Christ as our Saviour, and without doubting rest assured, that only through him we can be made partakers of the mercy of God. Without the infinite merits of Christ all our attempts are in vain, and man can never be saved. This is clearly taught every where in the word of God, John iii. 15; 'For God so loved the world that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life;' and verse 18, 'He that believeth on him is not condemned, but he that believeth not is condemned already.' When we consider faith as essential to salvation, it is to be understood, that we mean faith unfeigned, sincere, and living, that is, 'faith which worketh by love,' Gal. v. 6.

'*Of the true church.*—From the beginning of the world to the present time, and to the very end of time, the church has been, and will be, always one and the same. One, because there is for ever one faith, one foundation of faith, and one head of the church, Christ; one way of salvation, and one hope for all. Thus it is written to the Ephesians, 'One body and one spirit, even as ye are called in one hope of your calling; one Lord, one faith.' Chap. iv. 4. Hence this church only cuts off all those who either do not receive the word of God, or mix their own improper opinions with it; therefore, the society of such people is not a church, but an assembly holding heterodox opinions, which is governed by the spirit of division, and not by the Spirit of God. Even at the present time, to the offence of Christians, we behold three chief sects or parties in Christianity: Papists, Lutherans, and Calvinists. They are mutually in opposition to one another. Popery, exclusive of its being filled with the most pernicious superstitions, and the edicts of Popes, in contradiction to the word of God, blindly holds the tenet in regard to the proceeding of the Holy Ghost above mentioned, and explains it in opposition to the clear testimony of Holy Scripture. It has also taken away from the common people the cup in the communion, and the reading of the Holy Scriptures. It has further devised some sort of a purgatory fire, has appropriated to itself a power unknown in the gospel, and undertakes to convert gainsayers by fire and sword.

'The Lutherans and Calvinists dissented not

long ago from popery under Luther and Calvin, whom passion, more than any thing else, excited to this novelty. They, in avoiding popish superstitions and superfluities, threw away, together with them, the holy apostolical traditions of the first churches. Notwithstanding they hold the same opinion with the Romanists in regard to the proceeding of the Holy Ghost. But exclusive of this, they teach, what is contrary to scripture, respecting the mystery of the communion and the other mysteries. The Lutherans, moreover, attach to the body of Christ omnipresence, which is an attribute peculiar to God alone, and the Calvinists draw upon men's actions an inevitable kind of predestination. But our Greeko-Russian church proves its genuineness by incontestable evidences; for, from the very time of the apostles to the present day, it has preserved inviolate the faith preached by them, and the ancient traditions of the first churches. Greece was converted to the faith by the apostle Paul himself, and the truth which she received from him she preserved inviolate throughout all the succeeding ages; and, if there happened to be sometimes heretical and pernicious doctrines taught, yet they were always condemned in the general and particular councils.

'With this faith, thus preserved in all its purity, it pleased God at last to enlighten Russia. And as in Greece, so in Russia, there never has taken place any change in the faith; such, for instance, as took place among the Papists in the time of Luther; yet, amongst those who hold to our church, there may exist a certain kind of superstition and abuse; but our church does not justify such improprieties; she rather mourns over them, reproves and corrects them. And the erroneous opinions of a few, founded on ignorance of the truth, can never, in justice, be imputed to the whole church. Hence, it is evident, that our orthodox church is not only the true church, but that it is one and the same from the very foundation of the world. From the very foundation of the world, I say; because it agrees with the Greek church, and the Greek church never departed from the primitive apostolical church. Again, the apostolical church was not different in the essence of faith from the Old Testament church; and the Old Testament church was founded upon the saving truth, which, with stedfast faith, was held both before and after the flood by the holy patriarchs, even from the very foundation of the world. Hence the evangelical orthodox faith of our church refers for its foundation to the very beginning of the world, and shall remain, as the Holy Ghost hath assured us, to the end of time.'

There are many passages in this treatise which would do honor to any protestant writer, and which prove this branch of the Greek Church to be possessed of much 'sound doctrine.'

The Greek Language, as preserved in the writings of the celebrated authors of antiquity, Homer, Hesiod, Demosthenes, Aristotle, Plato, Xenophon, &c., has a great variety of terms and expressions, suitable to the genius and occasions of a polite and learned people, who had a taste for arts and sciences. In it, proper names are significant, which is the reason that the modern languages borrow so many terms from it; and that when any new invention, instrument, or machine, is discovered, recourse is generally had to the Greek for a name. See Language.

Greek Orders, in architecture, are the Doric, Ionic, and Corinthian; in contradistinction from the two Latin orders, the Tuscan and Composite. See Architecture.

GREEN, *adj. n. s.* & *v. a.*, Green'-broom, *n. s.*, Green'-cloth, *n. s.*, Green'-eyed, *adj.*, Green'-finch, *n. s.*, Green'-gage, *n. s.*, Green'-house, *n. s.*, Green'ish, *adj.*, Green'ly, *adv.*, Green'ness, *n. s.*, Green'-sickness, *n s.*, Green'-sward, *n. s.*, Green'sword, *n. s.*, Green'-weed, *n. s.*, Green'-wood, *n. s.* Saxon ȝnene; Germ. *grun*; Dut. *groen*. Having a color formed commonly by compounding blue and yellow; of the color of the leaves of trees or herbs. Figuratively, pale; sickly: from whence we call the maid's disease the green-sickness, or chlorosis. Like it is Sappho's χλωροτερη ποιας. Flourishing; fresh; undecayed; not dry; half-roasted; unripe, according to the subjects to which it is applied as an epithet; a green color; a grassy plain; shrub; a quantity of foliage. Green-finch, a kind of bird. Green-gage, a species of plum. Green-house, a house in which tender plants are sheltered from inclement weather. Green-sward, the turf on which grass grows. Green-wood, a term applied to the woods as they appear in spring or summer. Green-cloth, a board or court of justice held in the counting-house of the king's household, for the taking cognizance of all matters of government and justice within the king's court-royal; and for correcting all the servants that shall offend.

I sawe the laurer Daphne closed under rinde;
With the *greene* laurer; and the wholsome pine;
The Mirre also, that wepeth ever of kinde;
The Cedres hie, as upright as a line;
The filbert, eke, that lowe doeth encline
Hire bowes *greene* unto the yerth adoun, adoun,
Unto hire knight, called Demophoon.
Chaucer. Complaint of the Blacke Knight.

With goodly *greenish* locks, all loose, untyed,
As each had been a bride. *Spenser.*

If a spark of error have thus far prevailed falling even where the wood was *green*, and farthest off from any inclination unto furious attempts; must not the peril thereof be greater in men, whose minds are of themselves as dry fewel, apt beforehand unto tumults? *Hooker's Dedication.*

Was the hope drunk
Wherein you drest yourself? Hath it slept since?
And wakes it now to look so *green* and pale
At what it did so freely? *Shakspeare. Macbeth.*

There's never any of these demure boys come to any proof: they fall into a kind of male *green* sickness. *Id. Henry IV.*

You'll find a difference
Between the promise of his *greener* days,
And these he masters now. *Id. Henry V.*

My sallad days,
When I was *green* in judgment, cold in blood!
Shakspeare.

Kate, I cannot look *greenly*, nor gasp out my eloquence; nor have I cunning in protestation. *Id.*

The door is open, Sir, there lies your way,
You may be jogging while your boots are *green*.
Shakspeare.

Griefs are *green*;
And all thy friends, which thou must make thy friends,
Have but their stings and teeth newly taken out.
Id.

In a vault,
Where bloody Tybalt, yet but *green* in earth,
Lies festering in his blood.
Id. Romeo and Juliet.

This is the prettiest low-born lass that ever
Ran on the *greensward*. *Id. Winter's Tale.*

Doubtful thoughts, and rash-embraced despair,
And shuddering fear, and *greeneyed* jealousy.
Shakspeare.

Her mother hath intended
That, quaint in *green*, she shall be loose enrobed.
Id.

For this down trodden equity, we tread
In warlike march these *greens* before your town. *Id.*

Of fragility the cause is an impotency to be extended, and therefore stone is more fragil than metal, and so dry wood is more fragil than *green*. *Bacon.*

For the *greencloth* law, take it in the largest sense, I have no opinion of it. *Id. Advice to Villiers.*

The general colour of plants is *green*, which is a colour that no flower is of: there is a *greenish* primrose, but it is pale and scarce a *green*. *Bacon.*

A man that studieth revenge keepeth his own wounds *green*, which otherwise would heal and do well. *Id. Essays.*

Among wild herbs under the *greenwood* shade.
Fairfax.

Being an olive tree
Which late he felled; and being *greene*, must be
Made lighter for his manage. *Chapman.*

In a meadow, though the meer grass and *greenness* delights, yet the variety of flowers doth heighten and beautify. *Ben Jonson.*

My reason, which discourses on what it finds in my phantasy, can consider *greenness* by itself, or mellowness, or sweetness, or coldness, singly and alone by itself. *Digby on Bodies.*

O'er the smooth enamelled *green*,
Where no print of step hath been,
Follow me as I sing. *Milton.*

Whose primitive tradition reaches
As far as Adam's first *green* breeches. *Butler.*

About it grew such sort of trees, as either excellency of fruit, stateliness of growth, continual *greenness*, or poetical fancies have made at any time famous.
Sidney.

This prince, while yet the errors in his nature were excused by the *greenness* of his youth, which took all the fault upon itself, loved a private man's wife. *Id.*

If you but consider a piece of *green* wood burning in a chimney, you will readily discern, in the disbanded parts of it, the four elements. *Boyle.*

With *greens* and flowers recruit their empty hives,
And seek fresh forage to sustain their lives. *Dryden.*

Every brow with cheerful *green* is crowned;
The feasts are doubled, and the bowls go round.
Id.

The fragrant *greens* I seek, my brows to bind. *Id.*

It happened on a Summer's holiday,
That to the *greenwood* shade he took his way;
For Cymon shunned the church. *Id.*

I might dilate on the temper of the people, the power, arts, and interest of the contrary party, but those are invidious topicks, too *green* in our remembrance. *Id.*

O charming youth, in the first opening page;
So many graces in so *green* an age. *Id.*

But with your presence cheered, they cease to mourn,
And walks were fresher *green* at your return. *Id.*

After break their fast
On *greensword* ground, a cool and grateful taste.
Id.

If I have any where said a *green* old age, I have Virgil's authority; sed cruda deo viridisque senectus.
Id.

The young Æmilia, fairer to be seen
Than the fair lily on the flowery *green*. *Id.*

The *green* do often heat the ripe, and the ripe, so heated, give fire to the *green*.
Mortimer's Husbandry.

If you would fat *green* geese, shut them up when they are about a month old. *Id.*

The chaffinch, *greenfinch*, dormouse, and other small birds, are injurious to some fruits. *Mortimer.*

If the season prove exceeding piercing, which you may know by the freezing of a moistened cloth set in your *greenhouse*, kindle some charcoal. *Evelyn.*

Stubble geese at Michaelmas are seen
Upon the spit, next May produces *green*. *King.*

Take the picture of a man in the *greenness* and vivacity of his youth, and in the latter date and declension of his drooping years, and you will scarce know it to belong to the same person. *South.*

Sometimes our road led us into several hollow apartments among the rocks and mountains, that look like so many natural *greenhouses*, as being always shaded with a great variety of trees and shrubs that never lose their verdure. *Addison.*

A kitchen-garden is a more pleasant sight than the finest orangery or artificial *greenhouse*. *Spectator.*

Till the *green*-sickness and love's force betrayed
To death's remorseless arms the unhappy maid.
Garth.

Cinnabar, illuminated by this beam, appears of the same red colour as in day-light; and if at the lens you intercept the *green* making and blue making rays, its redness will become more full and lively.
Newton's Opticks.

Of this order the *green* of all vegetables seems to be, partly by reason of the intenseness of their colours, and partly because, when they wither, some of them turn to a *greenish* yellow. *Newton.*

Sour eructations, and a craving appetite, especially of terrestrial and absorbent substances, are the case of girls in the *greensickness*. *Arbuthnot.*

Groves for ever *green*. *Pope.*

In shallow soils all is gravel within a few inches; and sometimes in low ground a thin *greensward*, and sloughy underneath; which last turns all into bog.
Swift.

Under this head we may rank those words which signify different ideas, by a sort of an unaccountable far-fetched analogy, or distant resemblance, that fancy has introduced between one thing and another; as when we say the meat is *green*, when it is half roasted. *Watts's Logick.*

Let us but consider the two colours of yellow and blue; if they are mingled together in any considerable proportion, they make a *green*. *Id.*

Great Spring before
Greened all the year; and fruits and blossoms blushed
In social sweetness on the self-same bough.
Thomson.

But see the fading many-coloured woods
Shade deep'ning over shade, the country round
Imbrown; crowded umbrage dusk and dun,
Of every hue, from wan declining *green*
To sooty dark. *Id. Seasons.—Autumn.*

Thus is Nature's vesture wrought
To instruct our wandering thought;

Thus she dresses *green* and gay
To disperse our cares away. *Dyer.*

From silent mountains, straight, with startling sound,
Torrents are hurled; *green* hills emerge; and lo,
The trees with foliage, cliffs with flowers are crowned.
Beattie's Minstrel.

Green (John), an English prelate, born in 1706, at Beverly, in Yorkshire, was admitted a sisar of St. John's College, Cambridge, of which he became a fellow. In 1744 he was appointed chaplain to the duke of Somerset, who gave him the living of Borough-green, near Newmarket. In 1748 he was elected regius professor of divinity; and two years after master of Benedict College, Cambridge. He became, in 1756, dean of Lincoln, and afterwards bishop of that see. In 1771 he obtained the deanery of St. Paul's. He died in 1779. He was one of the writers of the Athenian Letters; besides which he published a tract on Enthusiasm, and some sermons, &c.

Green (Matthew), a poet, of whom little is known, except that he was brought up among the dissenters of London, and had a situation in the custom-house. He died in 1737. His poem, entitled The Spleen, is an ingenious piece, and was printed, with others of this author, in Dodsley's collection.

Green (William), an English divine, fellow of Clare Hall, Cambridge, and rector of Hardingham, in Norfolk, died in 1794. His works are—1. The Song of Deborah, reduced to metre; with a Translation and Commentary, 4to. 2. A Translation of the Prayer of Habakkuk, the Prayer of Moses, and the 139th psalm, with a Commentary, 4to. 3. A new translation of the Psalms, with notes, 8vo. 4. A new Translation of Isaiah, from the seventh to the fifty-third chapter, with notes, 4to. 5. Poetical parts of the Old Testament, translated from the Hebrew, with notes, 4to.

Green, a county of Kentucky, in the United States. Greensburgh is the chief town. Population in 1815, 6735.

Green, a county of the United States, in the state of Ohio. It has Clinton county on the south, Fayette and Maddison counties on the east, and Champaign and Montgomery counties on the west, and is about twenty-four miles square. The valleys are wide, rich, and productive; the more elevated grounds are generally of a second quality. It is watered by the Little Miami, Mud River, Cæsar's and Massie's Creeks, and several other inconsiderable streams. Zenia is the chief town. Population in 1815, 8000

Green, a river of Kentucky, United States, which has its source in Lincoln county, and, pursuing a western course, enters the Ohio 200 miles below Louisville, and fifty miles above the mouth of Cumberland River. It is 200 yards wide at its mouth, and is navigable for boats nearly 200 miles. In summer it may be forded at 150 miles above its confluence with the Ohio; but in winter it is frequently swelled, by sudden and violent floods.

Green Bay, a bay on the west side of Lake Michigan, about ninety miles in length, but varying in breadth from fifteen miles to thirty. The channel by which it communicates with Lake Michigan is of sufficient depth for a vessel of sixty tons, and of proportionate width. Long. 87° 58′ W., lat. 45° N.

Green Briar County, a large and fertile county in Virginia, surrounded by Bath, Randolph, Harrison, Kanhaway, Botetourt, and Montgomery counties. The chief town is Lewisburg. Population in 1816, 5914.

Green-Cloth, Board of, is composed of the lord steward and officers under him, who sit daily. This court has power to maintain the peace of the verge, or jurisdiction of the court-royal; which is every way about 200 yards from the last gate of the palace where his majesty resides. It takes its name from a green cloth spread over the board where they sit. Without a warrant first obtained from this court, none of the king's servants can be arrested for debt.

Green-Cloth, Clerks of the, were two officers of the board of green cloth, who appointed the diet of the king and his household; and kept all records, legers, and papers relating thereto; made up bills, parcels, and debentures for salaries, and provisions and necessaries for the officers of the buttery, pantry, cellar, &c. They also waited upon foreign princes when entertained by his majesty. But this was abolished in 1782.

Green Earth. Color generally celandine-green. Massive, and in globular and amygdaloidal shaped pieces, sometimes hollow, or as incrusting agate balls. Fracture earthy. Opaque. Rather greasy. Adheres slightly to the tongue. Sp. gr. 2·6. Before the blow-pipe it is converted into a black vesicular slag. Its constituents are, silica 53, oxide of iron 28, magnesia 2, potash 10, water 6. It is a frequent mineral in the amygdaloid of Scotland, England, Ireland, Iceland, and the Faroe Islands. It occurs in Saxony, near Verona, the Tyrol, and Hungary. It is the mountain-green of artists in water-colors.

A Green-House, or Conservatory, is a house in a garden, contrived for sheltering and preserving the most curious and tender exotic plants, which in our climate will not bear to be exposed to the open air, especially during the winter season. These are generally large and beautiful structures, equally ornamental and useful. Their length must be proportioned to the number o plants intended to be preserved in them, and cannot therefore be reduced to rule: but their depth should never be greater than their height in the clear; which, in small or middling houses, may be sixteen or eighteen feet, but in large ones from twenty to twenty-four feet; and the length of the windows should reach from about one foot and a half above the pavement, and within the same distance of the ceiling, which will admit of a cornice round the building over the heads of the windows. Their breadth cannot be in proportion to their length; for if in the largest buildings they are more than seven or seven and a half feet broad, they will be extremely inconvenient. The piers between the windows must be as narrow as may be to support the building; for which reason they should either be of stone or of hard burnt bricks. If the piers are made

'stone, they should be thirty inches wide in ont, and sloped off behind to about eighteen ches, by which means there will be no corners take off the rays of the sun. If they are of ick, they will require to be at least three feet front, but they should be in the same manner oped off behind. Over the greenhouse may be ions for drying and preserving seeds, roots, c., and behind it a place for tools and other rposes; and both those behind, and the rooms ove, will be of great use in keeping off the osts, so that the wall between them need not e of more than two bricks and a half in thick- ss. The floor of the greenhouse, which should e laid either with Bremen squares, Purbeck one, or flat tiles, must be raised two feet above ie surface of the adjoining ground, or, if the tuation be damp, at least three feet; and if the hole is arched with low brick arches under the oor, they will be of great service in preventing amps; and under the floor, about two feet from ie front, it will be advisable to make a flue of en inches wide and two feet deep; this should e carried the whole length of the house, and hen returned back along the hinder part, and here be carried up into funnels adjoining to the ool-house, by which the smoke may be carried ff. The fire-place may be contrived at one end f the house, and the door at which the fuel is ut in, as also the ash-grate, may be contrived o open into the tool-house, and, the fuel being aid in the same place, the whole will be out of ight. Bradley advises, that the front of green- ouses, in the colder parts of England, be built n a sweep or semicircle, so that one part or other f it may receive the sun's rays all day. The use f fires must, however, be very sparing in this lace; and not one winter in three or four will equire them in any part; only when the weather s very severe, and the frost cannot well be kept ut any other way, this expedient may save a hole house of plants. Withinside of the win- lows, in front of the greenhouse, there should be ood strong shutters, made with hinges to fold ack close to the piers, that they may not ob- truct the rays of the sun. The back part of the ouse should be either laid over with stucco or lastered with mortar, and whitewashed, in order o prevent the frosty air from penetrating through he walls. When the greenhouse is wainscotted, he walls should be plastered with lime and hair ehind the wainscot to keep out the cold; and he wainscot, as well as the ceiling, and every art within the house, should be painted white, o reflect the sun's rays. There must be a num- er of tressels with forms of wood upon them, to upport the pots of plants; the tallest to be laced hindmost, the lowest within four feet of he windows; and the rows of plants should rise radually, so that the heads of the second row hould be entirely above the first; and behind hem there should be a space of at least five feet or the convenience of watering the plants, and or a free circulation of the air. The wings may e made capable of a greater warmth also by nore flues, and may be made to contain a hot- ed of tanner's bark, for raising many of the ender plants, natives of warm climates. Whilst he front of the greenhouse is exactly south, one of the wings may be made to face the south-east and the other the south-west. By this disposition the heat of the sun is reflected from one part of the building to the other all day, and the front of the main greenhouse is guarded from the cold winds. These two wings may be so contrived as to maintain plants of different degrees of hardiness, which may be easily effected by the situation and extent of the fire-place, and the manner of conducting the flues: the wing facing the south-east is evidently most proper for the warmest stove; this may be divided in the middle by a partition of glass, with glass doors opening from one division to the other. In each of these there should be a fire-place, with flues carried up against the back wall, through which the smoke should be made to pass as many times the length of the house as the height will admit of the number of flues; for the longer the smoke is in passing, the more heat will be given to the house with a less quantity of fuel. The other wing, facing the south-west, should be divided and furnished with flues in the same manner; and thus different degrees of heat may be obtained, according to the seasons and the particular sorts of plants that are to be preserved. If there are no shades behind these wings, the walls should not be less than three bricks thick; and the back part having sloping roofs, which are covered with tiles or slates, should be lined with reeds, &c., under the covering. The sloping glasses of these houses should be made to slide and take off, so that they may be drawn down more or less in warm weather to admit air to the plants; and the upright glasses in front may be so contrived as that every other may open as doors upon hinges, and the alternate glasses may be divided into two. The upper part of each should be so contrived as to be drawn down like sashes, so that either of them may be used to admit air, in a greater or less quantity as there may be occasion. As to the management of the plants, Mortimer recommends opening the mould about them from time to time, and sprinkling a little fresh mould in them, and a little warm dung on that; as also to water them when the leaves begin to wither and curl, and not oftener, which would make them fade and be sickly; and to take off such leaves as wither and grow dry.

Green Island, an island on the west coast of North America, in Prince William's Sound, about twenty-four miles in circumference, and is surrounded with islets. Long. 213° 7′ E., lat. 60° 18′ N.

Green Mountains, a range of mountains extending N.N.E. to S.S.W. North America, and dividing the waters which flow easterly into Connecticut River, from those which flow westerly into Lake Champlain, Lake George, and Hudson's River. The land generally rises to its height at from twenty to thirty miles distance from the rivers. The growth upon these mountains is hemlock, pine, spruce, and other evergreens; hence they have always a green appearance, and on this account have obtained their name. In some parts snow lies till May, and sometimes till June. The chain extends through Massachusetts and Connecticut, and terminates

in New Haven. Kellington Peak, the highest of these mountains, is about 3454 feet above the level of the ocean.

GREEN RIVER, a river of New Brunswick, which runs into the St. John. Long. 67° 58′ W., lat. 47° 20′ N.—Also a river of Canada, which runs into the St. Lawrence, 115 miles below Quebec.

GREENE (Dr. Maurice), a celebrated musical composer. He was brought up in the choir of St. Paul's, and was afterwards bound apprentice to Brind, the organist of that cathedral. He was early noticed as an elegant organ player and composer for the church, and obtained the place of organist of St. Dunstan in the West, before he was twenty years of age. In 1717, on the death of Daniel Purcell, he was likewise elected organist of St. Andrew's, Holborn; but the next year, his master Brind dying, Greene was appointed his successor by the dean and chapter of St. Paul's; upon which event, he quitted both the places he had previously obtained. In 1726, on the death of Dr. Croft, he was appointed organist and composer to the Chapel Royal; and on the death of Eccles, 1735, master of his majesty's band. In 1730 he obtained the degree of doctor in music at Cambridge, and was appointed public music professor in the same university, in the room of Dr. Tudway. During the last years of his life he began to collect the services and anthems of our old church composers, from the single parts used in the several cathedrals of the kingdom, in order to correct and publish them in score; a plan which he did not live to accomplish; but, bequeathing his papers to Dr. Boyce, it was afterwards executed in a very splendid and ample manner. Dr. Greene died in 1755, and was succeeded, as composer to the Chapel Royal and master of his majesty's band, by his pupil Dr. Boyce.

GREENE, a county of the state of New York, on the west side of the Hudson. It was erected from Albany county in 1801, and is bounded on the north by Schoharie and Albany counties, east by the Hudson, south by Ulster county, and on the west by Delaware county. Its form is irregular, but the area is estimated to be equal to 508 square miles. Population in 1816, 19,566. The chief town is Catskill.

GREENE, a county of the United States, in East Tennessee. Greenville is the chief town. Population 9713.

GREENEVILLE, a town of the state of Tennessee, in Greene county, situated on Nolachucky river, seventy-five miles east of Knoxville.

GREENFIELD, a post town, the capital of Franklin county, Massachusetts, North America, on the west bank of the Connecticut; twenty miles south of Brattleborough; twenty-one north of Northampton; ninety-five W.N.W. of Boston; 406 west. It is situated in a pleasant and fertile tract of country, and contains a courthouse, a jail, a printing-office, a cotton manufactory, an oil-mill, and three religious societies, two congregational, and one episcopal. It is situated about one mile and a half from the river; is very pleasant, handsomely built, and flourishing, and has considerable trade. A weekly newspaper is published here.

GREENLAND, an extensive country of the Western hemisphere, having the Polar Seas, or some unknown regions, for its northern boundary; the Icy Sea, and the straight which separates it from Iceland, on the east; and Baffin's Bay on the west: south, and south-east, it is washed by the Atlantic Ocean. It has been conjectured to be insular,—to consist of a cluster of islands, &c., but these are mere surmises: the only known part of the coast is Cape Farewell, and a portion of West Greenland, extending to about 76° of N. lat. The eastern coast has been totally inaccessible in modern times. Hudson saw it in 73°. In 1788 a Danish ship is said to have seen this coast 2° 30′ E. of Cape Farewell; and it is also said to be seen, in clear weather, from the mountains of Iceland, in lat. 65°. The Dutch whalers, it appears, used formerly to visit this coast, between the lat. of 70° and 76°, and gave it the name of Galehamsques, or Hamken's Lund. In lat. 70° they found a deep indentation twenty-five leagues broad, which they concluded to be a strait, communicating with that of Davis, from meeting the same species of whales, some individuals of which they occasionally took with the harpoons of the western Greenlanders in them.

The knowledge of the western coast, however, proves that no strait exists between Cape Farewell and the 72°. Des Pages, who supposed himself to be within a short distance of the coast of Galehamsques, in lat. 74° 20′, estimates its longitude on that parallel at 15° 10′ W., and says, that the Dutch placed it in 18° 14′, on the parallel of 72°. Combining these data with the reports of the missionaries, that the west coast is inhabited to the lat. of 76°, we may rationally conclude that both the east and west coasts extend to this parallel.

Greenland, according to the Chronicles, was discovered in 982. The favorable account given of it by the first visitors caused the Icelanders and Norwegians to send a colony hither in 986. In 1000 these colonists were converted to Christianity; and until 1418 they had a regular succession of bishops from Denmark. The colony was divided into two cantons, named East and West; in the former were the two towns of Garda and Hrattalid, twelve churches, and two convents; and in the latter four churches, and 100 farms in cultivation. The plague, which, at the commencement of the fifteenth century, ravaged all Europe, and depopulated the north in particular, carried off the majority of the inhabitants of Greenland; and in 1418 an unknown fleet arrived, and, attacking the weakened colonists, destroyed every thing by fire and sword. The division of the ancient Scandinavian colony in Greenland into East and West has given rise to a great geographical error. It being conceived that the eastern canton occupied the coast opposite to Iceland, while it is satisfactorily proved by the routes of the voyagers from Norway and Iceland that this canton occupied the most southerly part of the west coast; and, indeed, it is here alone that, for a few weeks in summer, a brilliant verdure justifies the name of Greenland given to this country by the Icelanders. The sites of the two ancient colonies have been discovered by the missionaries, who have found the ruins of

seven churches on the south-west coast, and, after passing a space without any such vestiges, they are again met with a little to the north of Cape Desolation.

From the year 1418 to 1576 Greenland seems to have vanished from observation. In the latter year its south extremity was visited by Frobisher, who named it West Friezeland; and, having picked up some black stones which proved to be the marcasite of gold, Elizabeth gave the country the name of Meta Incognita (unknown limit), and determined on forming a colony here, for which purpose Frobisher was sent out on his third voyage, but the loss of the ships, with the materials for building, frustrated this plan; and Greenland was again neglected until 1720, when Egede, a Dane, inspired by religious zeal, determined to visit it, and seek for the remains of the ancient colonies. Being followed by other missionaries, with their families, several establishments were formed on the west coast, and many of the Pagan natives converted. In 1765 the Moravian brethren began to form settlements on the same coast.

Greenland forms an assemblage of rocky mountains, whose summits are crowned with eternal snow and ice. The most elevated on the west coast rises in three peaks, called Deer's Horns, that are seen forty leagues. The mountains are composed of granite, argillaceous stone, and a colored stone, of which the natives make their lamps, boilers, and other utensils. The signs of metals have been observed, and asbestos is met with in the mountains. A new mineral named cryolite has also been found here.

The summer, towards the south, commences at the end of May, and lasts till the beginning of September. This season would be agreeable did not the thick fogs obscure the atmosphere and weaken the power of the sun. At the approach of winter storms are often violent, but during the greatest cold, which is in February and March, it is usually calm. Thunder and rain are uncommon. The Aurora Borealis is frequent and very bright. The tides in the bays are said to rise sometimes eighteen feet. In the isle of Onastok, in lat. 60°, is a constant boiling spring.

The soil is clay mixed with sand. To the north the only vegetation is mosses; but to the south are found small juniper, willows, and birches two or three yards high, together with various berry-bearing bushes, wild angelica, sorrel, tansey, rosemary, scurvy-grass, and other antiscorbutic plants, and some grasses. On the south the missionaries have endeavoured to raise wheat, but the plant, after forming a stalk of some height, always dries up and dies: they have, however, succeeded better with cabbages, turnips, and radishes.

The coasts are indented with gulfs, filled with islands, and well stocked with fish, particularly cod, hallibut, and herrings. The rocks are the resorts of several species of seals, and of innumerable aquatic birds, amongst which is the eider duck. The rivers are in general small, and as well as the springs freeze in winter, and many of them dry up in summer. They afford salmon and cray fish. The principal fuel is the drift wood, brought to the shores by the currents. The sea-water deposited in the crevices of the rocks is formed into salt by natural evaporation. The quadrupeds are white bears, white and gray foxes, white hares, wolves, and dogs, used by the natives to draw their sledges, as well as occasionally for food; rein-deer are also tolerably plentiful, but the Greenlanders do not take the pains to domesticate them.

The Greenlanders are evidently the same race as the Esquimaux of the neighbouring continent. Their number is very inconsiderable, being greatly reduced by the small-pox introduced from Copenhagen in 1772. The missionaries calculate under 1000 the fixed Greenlanders in their establishments, and Crantz estimates the wandering tribes at 7000 souls. In 1805 the Europeans were 6000.

Greenland is politically divided into two inspectorships, named North and South, separated by the strait of Romelpoot, in lat. 68°. In the southern inspectorship are seven establishments of the missionaries and three of Moravians, viz. Julian's Harbour, 61°; Frederick's Harbour, 62° 30′; Fiskenhoset, 63° 30′; Good Haven 64° 10′; Sukertoppen 65° 40′; Kigurtursok, and Holsteinborg, 67° 10′. The Moravian are New Hernhaut, near Good Haven, Lechtenfels, 63°, and Lichtenau, five leagues north-east of Cape Farewell.

In the northern inspectorship the missionaries' establishments are eleven; one on each of the islands of Prince Royal and Crown Prince, Egedesminde, 68° 20′; Jacob's Haven, 68° 40′; Christian's Haven 68° 50′; Claus Haven, Good Haven 69° 10′, in the isle of Disco; Fortune Bay, eight miles farther north, Rutter's Bank, 70° 10′; Umanak, 71°; Uppernavik, 72° 30′.

The Greenlanders are a migratory people, and often transfer their abodes, in the winter season, from one place to another. They build their houses generally at the mouths of friths, or on the shores of small islands. The following is a list of places inhabited by them from 1810 to 1813, supplied to the Edinburgh Philosophical Journal by Sir Charles Giesecke of Dublin.

I. Julianas-haab district.—In the south of Greenland, that is in 60°, or the most southern district of Julianus-haab, round Cape Farewell are inhabited:—

1. Alluk (that is the soles), two small islands presenting the shape of the soles of the foot.

2. Kippingajak, an island to the south of Alluk.

3. Pysursoak, a small bay to the north of Staatenhuck.

4. Nettingiak, on the continent, eastward from Cape Farewell.

5. Nennortelik (that is Bear-land), an island eastward from Cape Farewell.

6. Tessermint, a large frith to the north of Cape Farewell, formerly inhabited by the old Norwegians. At the mouth of this frith there are several Greenland houses, sixty-four miles south from the colony of Julianas-haab, in 60°.

7. Kognamint, to the south of Julianas-haab, on the continent.

8. Innersutalik, an island forty miles southward from Julianas-haab.

9. Agluitsock, on the continent, thirty miles southward from the colony.

10. Sardlok, an island sixteen miles southward from the colony.

11. Omenalik, twelve miles to the south of the colony.

12. Upernaviarsuk, sixteen miles towards the east of the colony.

13. Itiblik, twenty miles towards the east of the colony. At the colony of Julianas-haab, only natives are employed in the service of the trade, who live in Greenland houses. Between 61° and 62° are inhabited.

14. Ikertongoak, an island eight miles towards the west, at the mouth of the frith called Kakortok.

15. Narksak, in the vicinity of the continental ice, twenty miles northward from the colony.

16. Krimatuluitsanik, an island forty miles northward from Julianas-haab.

17. Okaitsermint and Kikerteitsiak, forty-four miles from the colony. Here ends the district called Julianas-haab. It is inhabited by 1762 natives, viz. 754 males and 1008 females.

II. (18.) Fredericks-haab district extends from the Nunarsoi Island to the Ice-blink, about 20′ to the north of Fredericks-haab. Of the southern part of the district are inhabited:—

19. Torngarsuk, an island thirty-two miles to the south of the colony.

20. Kangarsuk, a cape of the continent of Greenland.

21. Narksalik, twenty-eight miles southward from the colony: and,

22. Sioramint, eight miles to the north of the colony. The population of this district comprehends 552 natives, viz 234 males and 318 females.

III. Fisker-nær District extends from 62° 52′ to 63° 30′.

23. The inhabitants of the district Fiskernær have their houses at the settlement of the Moravian Brethren, called Lichtenfeld. Their number is 280, viz. 112 males and 168 females.

IV. Godt-haab. The district of the colony Godt-haab begins at 63° 30′, and reaches to 64° 52′. The following places are inhabited:—

24. Kariæt, eight miles southward from the colony.

25. New-Sterrn-Hut, a Moravian settlement, situated between the friths of Ameraglik and Baals River.

26. Godt-haab, the Danish colony in Baals River, and

27. Sarlok, to the north-east of Baals River.—The population of this district amounts to 489 natives, viz. 186 belonging to the Danish mission and 303 belonging to the Moravian mission. The former consists of eighty-one males and 105 females, the latter of 123 males and 180 females.

V. Sukker-top. The district of Sukker-top (sugar loaf) begins at 64° 52′ and ends at 66° 17′. In this district the following places are inhabited by natives. Towards the south of the colony:—

28. Nappasok, an island situated forty miles southward from the colony.

29. The colony Sukker-top itself, called Manetsok by the natives; and

30. Akpamiut, sixteen miles northward from the colony. The population of this district is 304; viz. 143 males and 161 females.

VI. Holsteinsburg District is the last in South Greenland.

31. The district of Holsteinsburg begins at 66° 16′ and ends with 67° 45′. The natives, being employed in the whale fishery, have all their winter-houses round the colony. The number of the inhabitants of this district is 196, viz. eighty-seven males and 109 females. Thus the whole population of South Greenland, the limits of which are fixed to the Strom Frith in 68°, comprehends a number of 3583 souls.

North Greenland commences in lat. 67° 43′, and comprehends the following districts:

1. Egedes-mindes district, extending from . .	67° 43′ to	68°
2. Christianshaab district.	68°	68° 10′
3. Jacobshavn district .	68°	69° 40′
4. Rittenbenks district .	69° 40′	71°
5. Omenaks district .	71°	72° 8′
6. Upernaviks district .	72° 8′	76° 30′

The population of North Greenland is not entirely ascertained, but it does not exceed the number of 3000 souls. The country from 67° to 69° is uninhabited. The first district of North Greenland is that of the colony Egedes-minde. The natives belonging to this and the other districts situated round Disko-Bay, or Fish-Bay, have their houses at the colonies, for the sake of the whale-fishery. The Greenlanders of Omenak district are the only natives of the whole coast who live during winter in the interior of that extensive frith, having their supply in catching the seals, by means of nets which are set under the ice.

The most northern district is that of Upernavik; it begins at 72°, and reaches to the remotest north; but it is only inhabited to the 73°. Southwards from Upernavik is situated Kangersoietsiak, an island inhabited by natives. At Upernavik four or five Greenland families have their abode. At Tessiursak, an island in 74° 15′, eighty miles northward from Upernavik, one family terminates the population of this forlorn country.

GREENOCK, a town in the lower ward of Renfrewshire, and the principal sea-port of Scotland, is situated in long. 0° 18′ 58″ W., lat. 55° 57′ 2″ N. Seated on the south bank of the Frith of Clyde; it has in front a noble bay, anciently called the bay of St. Lawrence, the river expanding here to the breadth of more than five miles. The advance of Greenock to its present commercial importance, from an obscure fishing village, has been steadily progressive, yet rapid. In 1757, at which period the population was under 4000, it was erected into a burgh of barony by Sir John Schaw, who at the same time conferred upon the feuars and burgesses the power of electing their own magistrates, a privilege rarely possessed in Scotland.

Though a modern town, Greenock is irregularly built, and the streets in the lower part of it very narrow. The principal line, however, which extends about a mile from east to west, is tolerably spacious and well-built, and at the west end of the town the streets are judiciously laid out, and the houses handsome. Near the

eastern extremity is a square, containing a spacious parish church, with a spire 146 feet in height. In the same square is an elegant reading room, and still further eastward are placed the Exchange Buildings, containing another public reading room, assembly rooms, &c.; and on the opposite side of the street is the Tontine, an extensive hotel for the accommodation of travellers.

In 1826 James Watt, Esq., of Soho, son of the celebrated improver of the steam-engine, to whom Greenock had the distinguished honor of giving birth, bestowed a sum of £2000, to be expended in the erection of a suitable hall for a public library, the site of which was judiciously laid in the vicinity of the public buildings just mentioned; and in this edifice is to be placed a full-length marble statue of the late Mr. Watt, from the chisel of Chantry. In 1817-18 an extensive edifice was erected by government, at an expense of £33,000, for the accommodation of the customs and excise departments: it is finely placed, close upon the river, and being a handsome structure, with a spacious front, and elegant portico, of the Grecian Doric order, is a very attractive object in approaching the harbour.

The chief foreign trade of Greenock is carried on with the West Indies, North and South America, the East Indies, and the Mediterranean. The principal imports are sugar, rum, coffee, cotton, timber, ashes, grain, &c. An extensive coasting trade is also carried on; much of the agricultural produce of Ireland is brought hither, and the herring fishery, originally its only trade, is still an important branch; the number of barrels cured in the ten years preceding the 5th of April, 1826, according to the official reports, giving an average of 18,608 barrels annually.

In the year 1825 the duties of customs collected at this port amounted to £414,447 2*s.* 7*d.*, and, notwithstanding the commercial depression of the following year, the sum of £395,774 2*s.* 5*d.* was collected in that which terminated on the 5th of January, 1827. From the 5th of January, 1826, till the period just mentioned, 54,037 tons of British shipping cleared inwards at this port, and 2380 Foreign ditto; 58,519 tons British, outwards, and 2260 foreign ditto; 39,299 tons of shipping cleared inwards, and 71,931 outwards, in the coasting trade. The registered shipping of the port, at this date, amounted to 26,534 tons. The harbours, which have been enlarged from time to time, are spacious and commodious, and capable of admitting vessels of great burden. There are two graving-docks, one of them very extensive, constructed at an expense of £30,000; and, upon the whole works for the accommodation of shipping, upwards of £120,000 have been expended. The revenues of the town and harbours exceed £10,000 annually. The business of ship-carpentry is extensively carried on here, there being four building-yards, which employ a great number of men, and annually launch some of the finest vessels of which the mercantile marine can boast. Since 1812, when on the Clyde the first successful experiment was made of applying steam to the purposes of navigation, the building of steam-boats has given no inconsiderable employment to the ship-carpenters. It was from this port that the first vessels which navigated the open sea between Holyhead and Dublin were fitted out, and subsequently those which run between the Clyde and Mersey; and, at a more recent date, the largest and most splendidly equipped steam-vessel in the world, the United Kingdom, was built and finished here, at an expense little short of £40,000.

In 1827, beside those steam-packets, many of them of large dimensions and power, which conveyed goods and passengers, or the latter exclusively, to and from this port and Liverpool, Dublin, Belfast, Derry, and the Western and Northern Highlands, a number plied within the range of Greenock and Glasgow only, making an aggregate number of about sixty vessels of this description alone. By this means an incalculable number of persons are annually conveyed in every direction; and places previous to the introduction of steam-vessels deemed remote, and comparatively inaccessible, are now brought into communication by a voyage of a few hours, with ease, safety, and certainty.

In local manufactures Greenock has not held so prominent a rank as in commerce; still it contains many works on a respectable scale of magnitude. Its sugar refineries, five in number, in all of which the process is carried on by steam, are extensively employed; it possesses two large works for the manufacture of steam-engines, and other machinery; a flint-glass work, the products of which are much esteemed; a bottle-work, breweries, distilleries, a pottery, rope-works, chain cable, and duck manufactories. Hat-making is also pretty extensively carried on; and, to the enterprise of two gentlemen in this place, the British public are indebted for the manufacture of straw-plat, in imitation of that imported from and known by the name of Leghorn, which they in a short period brought to so much perfection as to rival in every respect the foreign commodity. But in 1825, a period in which so many absurd projects, amongst some of unquestionable utility, found ready patrons, a scheme was first set in motion, of a novel description certainly, but calculated at no distant day to render Greenock as conspicuous in a manufacturing as a commercial point of view. It was shortly this: to take the advantage of the natural facilities which were presented by a chain of hills that extend several miles to the westward of Greenock, and by means of these to lead a considerable stream, known by the name of the Shaw's Water, along a high level to the immediate vicinity of the town, from the heights behind, which it might descend in successive falls, for the purpose of working machinery employed in the various manufactures, by a less expensive agent than steam. A joint stock company was accordingly formed, and incorporated by act of parliament with a capital of £30,000, and the execution of the plan confided in Mr. Robert Thom, of the Rothesay cotton works, who may be said to be the inventor of artificial water-power, having successfully carried into practice the same plan, though on a smaller scale, at Rothesay.

The necessary works were commenced, by

embanking the lower extremity of the valley through which the Shaw's Water flowed, to the height of fifty-six feet, by which a reservoir covering 315 acres of ground, and capable of containing 250,000,000 cubical feet of water, was formed. Less reservoirs were also made, increasing the quantity to 300,000,000, and the whole was computed to be adequate to the entire consumption, for four months, of a stream whose power should be equal to that of 100 horses; for other four months of the year the current natural supply was calculated to meet the demand; and the floods of the winter months were estimated not merely to do so, but likewise to replenish the exhausted reservoirs. In the execution, this leading part of the plan proved eminently successful, the supply of water being most abundant. From the reservoir the aqueduct was formed by cutting an embankment along the chain of hills already noticed: including the numerous curvatures, it measures nearly seven miles in length, and where it first branches off into two distinct streams, each possessing a moving power of fifty horses, with a thirty feet fall, it holds an elevation of 512½ feet above the level of the Clyde. Thus a power is supplied, which, by successively acting on machinery placed at given distances, yields an equivalent to the power of 8234 horses, working eight hours per diem; and as the value of a horse's power, where steam is employed, is estimated at £30 per annum, these works in their present state give an equivalent power of the value of £117,930 yearly; yet the entire undertaking did not cost more than £20,000, and at an inconsiderable expense this prodigious power is capable of being doubled in amount. Many ingenious yet simple contrivances are resorted to for regulating the supply of water, which cannot be here pointed out: they are all self-acting, and contrived to work with admirable precision. This novel undertaking was completed early in the summer of 1827. But for the convulsion of 1826 in the mercantile world, the means thus afforded of obtaining a moving power, which is let by the Shaw's Water Company at about one-eighth the expense of that derived from steam, would have induced many manufactories to be set down here; and there cannot be a doubt that in a few years this will be the case. Grain-mills have already been erected on one of the sites, and several manufactories new to the district, but for which it is peculiarly eligible by the possession of this economical power, and the proximity of an extensive shipping port, will be successively established. Nor can there be any question, that, where similar local facilities can be found, the plans of Mr. Thom will be speedily embraced, as their importance and successful operation become known, to the exclusion of the far more expensive agency of steam. The population of Greenock, by the census taken in 1811, was then 19,042; in 1821, 22,594; and in 1827 has probably increased to 25,000. The town is divided into three parishes; and besides three established churches, and two chapels of ease, possesses dissenting chapels of various denominations; an episcopal, and a Roman Catholic chapel. There are several excellent charitable institutions in the town. There are two local banking companies, both of which issue notes, but no branch establishments in town. A newspaper is published in it twice a week. Fairs are held twice a year, in July and November. It is distant from Glasgow about twenty-three miles west.

GREENVILLE, a post town of North Carolina, the capital of Pitt country; twenty-three miles from Washington, fifty-three south-west of Edenton, 444 of Philadelphia. Long. 2° 19′ W. of that city, lat. 35° 35′ N.

GREENWICH, a market town of Kent, pleasantly situated on the banks of the Thames five miles east of London. It had formerly a royal palace, built by Humphry duke of Gloucester, enlarged by Henry VII. and completed by Henry VIII. The latter often chose this town for his place of residence; as did also the queens Mary and Elizabeth, who were both born in it. Duke Humphry began a tower on the top of the steep hill in the park which was finished by Henry VII. but afterwards demolished, and a royal observatory erected in its place by Charles II. furnished with mathematical instruments for astronomical observations, and a deep dry well for observing the stars in the day-time. The palace having fallen into decay, king Charles II. pulled it down and began another, of which he lived to see the first wing magnificently finished. But king William III. in 1694, granted it, with nine acres of ground, to be converted into a royal hospital for old and disabled seamen, the widows and children of those who lost their lives in the service, and for the encouragement of navigation. The wing, which cost king Charles £35,000, is now the first wing of the hospital towards London. The front to the Thames consists of two ranges of stone buildings, with the ranger's house in the centre of the area, but detached from any part of the hospital. These buildings correspond with each other, and have their tops crowned with strong balustrades. The buildings which face the area correspond with them, though in a finer and more elegant style; and have domes at their ends, which are 120 feet high, supported on coupled columns. Under one of these is the hall, which is finely painted by Sir James Thornhill, and contains many royal portraits; and under the other the chapel. A fire broke out in the hospital on the 2d of January 1779, and totally consumed the dome at the south-east quarter of the building, with the chapel, which was the most elegant in the world, the great dining-hall, and eight wards, containing the lodgings of nearly 600 pensioners. The dome was rebuilt about 1785. On the sides of the gate which opens to these buildings from the park, are placed a large terrestrial and celestial globe, in which the stars are gilt; and in the centre of the area is a statue of George II. About 3000 old disabled seamen are maintained in this hospital. Besides private benefactions, to the amount of nearly £60,000 the British parliament, in 1732, settled upon it the earl of Derwentwater's estate, to the value of £6000 per annum. As well as the seamen and widows above mentioned, about 100 boys, the sons of seamen, are bred up for the service of the royal navy; but there are no out-pensioners as

at Chelsea. The park is well stocked with deer, and affords as much variety, in proportion to its size, as any in the kingdom; but the views from the observatory and the one-tree hill are beautiful beyond imagination, particularly the former. The projection of these hills is so bold, that one does not look down upon a gradually falling slope or flat enclosures, but at once upon the tops of branching trees, which grow in knots and clumps out of deep hollows and dells. The cattle which feed on the lawns, which appear in breaks among them, seem moving in a region of fairy-land. This is the foreground of the landscape: a little farther, the eye falls on that noble structure, the hospital, in the midst of an amphitheatre of wood, then the two reaches of the river make that beautiful serpentine which forms the Isle of Dogs, and present the floating treasures of the Thames. To the left appears a fine tract of country leading to the capital, which there finishes the prospect. The parish church of Greenwich, rebuilt by the commissioners for erecting the fifty new churches, is a very handsome structure, dedicated to St. Alphage, archbishop of Canterbury, who is said to have been slain by the Danes in 1012, on the spot where the church now stands. There is a college at the end of the town, fronting the Thames, for the maintenance of twenty decayed old housekeepers, twelve out of Greenwich, and eight alternately chosen from Snottisham and Castle-Rising in Norfolk. This is called the duke of Norfolk's college, though it was founded and endowed in 1613 by Henry earl of Northampton, the duke of Norfolk's brother, and by him committed to the care of the Mercers' Company. To this college belongs a chapel, in which the earl's body is laid; which, as well as his monument, was removed hither several years ago from the chapel of Dover Castle. The pensioners, besides meat, drink, and lodgings, are allowed 18*d*. a week, with a gown every year, linen once in two years, and hats once in four. In 1560 Mr. Lambard, author of the Perambulation of Kent, also built an hospital, called Queen Elizabeth's College, said to be the first erected by an English Protestant. There are likewise two charity schools in this parish. The Thames is here very broad, and the channel deep; and at very high tides the water is salt. This is the chief harbour for the king's yachts. A market on Wednesday and Saturday was instituted in 1737; the direction of which is in the governors of the royal hospital, to which the profits arising from it were to be appropriated. The English astronomers reckon their longitude from Greenwich.

Greenwich, a post town of Fairfield county, on Long Island Sound, in the south-west corner of the state; fourteen miles W. S. W. of Norwalk, forty-five W. S. W. of New-Haven, west 259.

Greenwich, a post town of Washington county, New York, eight miles west of Salem, thirty-seven north of Albany, 391 west. It contains two houses of public worship, one for congregationalists, and one for baptists; an academy, a distillery, and extensive cotton and woollen manufactories.

GREET, *v. a.* & *v. n.* } Sax. *gretan*; Belg. *greetan*; Lat. *grator*.
Greet'er, *n. s.* }
Gree'ting, *n. s.* } To address in any manner, but especially with kindness, compliments, or congratulations; to meet.

When Alla saw his wif, faire he hire *grette*;
And wept, that it wos routhe for to see;
For at the firste look he on hire sette,
He knew wel verily that it wos she.
Chaucer. The Man of Lawes Tale.

His lady, seeing all that channel from far,
Approacht in haste to *greet* his victorie. *Spenser.*

My noble partner
You *greet* with present grace, and great prediction;
To me you speak not. *Shakspeare. Macbeth.*

The king's a-bed,
And sent great largess to your officers;
This diamond he *greets* your wife withal,
By the name of most kind hostess. *Id.*

Now Thomas Mowbray, do I turn to thee,
And mark my *greeting* well; for what I speak,
My body shall make good. *Id. Richard II.*

I from him
Give you all *greetings*, that a king, as friend,
Can send his brother. *Id. Winter's Tale.*

My lord, the mayor of London comes to *greet* you.
—God bless your grace with health and happy days. *Shakspeare.*

Your haste
Is now urged on you.
We will *greet* the time. *Id. King Lear.*

There *greet* in silence, as the dead are wont,
And sleep in peace. *Shakspeare.*

I think if men, which in these places live,
Durst look in themselves, and themselves retrieve,
They would like strangers *greet* themselves. *Donne.*

Now the herald lark
Left his ground net, high towering to descry
The morn's approach, and *greet* her with his song.
Milton.

Once had the early matrons run
To *greet* her of a lovely son. *Id.*

The sea's our own, and now all nations *greet*,
With bending sails, each vessel of our fleet. *Waller.*

Thus pale they meet, their eyes with fury burn:
None *greets*; for none the *greeting* will return;
But in dumb surliness, each armed with care,
His foe profest, as brother of the war. *Dryden.*

I would gladly go,
To *greet* my Pallas with such news below. *Id.*

Such was that face on which I dwelt with joy,
Ere Greece assembled stemm'd the tides to Troy.
But parting then for that detested shore,
Our eyes, unhappy! never *greeted* more. *Pope.*

With annual joy the redd'ning shoots to *greet*,
Or see the stretching branches long to meet. *Id.*

Thus as the stream and ocean *greet*,
With waves that madden as they meet—
Thus join the bands from mutual wrong,
And fate and fury drive along. *Byron.*

GREEZE, *n. s.* Otherwise written greece. See Greece, or Grieze, or Grice; from degrees. A flight of steps; a step.

Gre'gal, *adj.* } Lat. *grex*. Belonging
Gregar'ious, *adj.* } to a flock; going in flock or herds like sheep or partridges.

No birds of prey are *gregarious*.
Ray on the Creation.

Gregorian Calendar, that which shows the new and full moon, with the time of Easter and the moveable feasts depending thereon, by means of epacts disposed through the several

months of the Gregorian year. See CHRONOLOGY and KALENDAR.

GREGORIAN STYLE, or new style, the style now used, which succeeded the Julian Style, in Britain in 1752.

GREGORIAN YEAR. See CHRONOLOGY.

GREGORIO (St.), an island in the province of Quarnaro, three miles long, and half a mile broad. The natives deal chiefly in sheep, of which there are 2500 on the island.

GREGORY, the name of fifteen popes of Rome. See ITALY. Of these we shall here only mention three of the most eminent, viz.

GREGORY I. surnamed the Great, pope of Rome, was born at Rome, of a patrician family, A. D. 544. He discovered such abilities in the exercise of the senatorial employments, that the emperor Justin the younger appointed him prefect of Rome. Pope Pelagius II. sent him nuncio to Constantinople, to demand succours against the Lombards. When he thought of enjoying a solitary life he was elected pope by the clergy, the senate, and the people of Rome, A. D. 590. Besides his learning and diligence in instructing the church, both by writing and preaching, he by his talents procured the acknowledgment of several princes of his temporal as well as spiritual right over their kingdoms. He undertook the conversion of the English, and sent over some monks of his order, under the direction of Augustin their abbot. With respect to the chastity of churchmen, he was very rigid; and he likewise exerted himself against such as were found guilty of calumny. He, however, flattered and favored the emperor Phocas, while his hands were yet reeking with the blood of Mauritius, and of his three children, who had been butchered in his sight. He is accused of destroying the noble monuments of ancient Roman magnificence, that those who visited the city might not attend more to the triumphal arches than to religion; and he burnt a multitude of the works of the ancients, among which were several manuscripts of Livy, lest the attention to heathen literature should supersede the monkish and ecclesiastical studies of the age. He died in 605. His Dialogues, principally an account of Roman Catholic miracles, and three of his Letters to Phocas, are extant.

GREGORY XIII. was a native of Bologna, and succeeded Pius V. in 1572. He was the most deeply versed in the canon and civil law of any in his time. He ornamented Rome with many fine buildings and several fountains. He corrected Gratian's Decretals, and wrote learned notes on them. But his chief merit lies in his alteration of the Kalendar, which was effected under his orders by Lewis Lilio, a Roman physician. See CHRONOLOGY. A short time before he died he received ambassadors from Japan, acknowledging the authority of the holy see. He died in 1585, aged eighty-three.

GREGORY XV. was also a native of Bologna, and descended of an ancient family. His name was Alexander Ludovisio. He was elected pope in 1621, and was author of several works, particularly one entitled Epistola ad Regem Persarum, Schah Abbas; published cum notis Hegalsoni, in 1627, 8vo.

GREGORY (Theodore), surnamed Thaumaturgus on account of his miracles, was the scholar of Origen; and was elected bishop of Neocæsarea, his birth-place, about A. D. 240, during his absence. He assisted at the council of Antioch in 255, against Paulus Samosatenus; and died in 270. He had the satisfaction of leaving only seventeen idolaters in his diocese, where there were but seventeen Christians when he was ordained. Of his works there are still extant, A Gratulatory Oration to Origen: a Canonical Epistle; and some other pieces.

GREGORY, bishop of Nyssa, one of the fathers of the church, and author of the Nicene creed, was born in Cappadocia, about A. D. 331. He was chosen bishop of Nyssa in 372, and banished by the emperor Valens for adhering to the council of Nice. He was afterwards, however, employed by the bishops in several important affairs, and died in 396. He wrote, Commentaries on the Scriptures; Sermons on the Mysteries; Moral Discourses; Dogmatical Treatises; Panegyrics on the Saints; Letters on Church Discipline; and other works. His style is very allegorical.

GREGORY (George Florentius), bishop of Tours, one of the most illustrious bishops and writers of the sixth century, was descended from a noble family in Auvergne. He was educated by his uncle Gallus, bishop of Clermont; and distinguished himself so much by his learning, that in 573 he was chosen bishop of Tours. He afterwards went to Rome to visit the tombs of the apostles, where he contracted a friendship with Gregory the Great, and died in 595. He was extremely credulous with regard to miracles. He wrote, 1. The History of France; 2. The Lives of the Saints; and other works. The best edition is that published by F. Rumart, in 1699.

GREGORY, surnamed Nazianzen, from Nazianzum, a town of Cappadocia, of which his father was bishop, was born, A. D. 324, at Azianzum, a village near it, and was one of the most illustrious ornaments of the Greek church in the fourth century. He was made bishop of Constantinople in 379; but finding his election contested by Timotheus, archbishop of Alexandria, he voluntarily resigned his dignity about 382, in the general council of Constantinople. His works are extant, in 2 vols., printed at Paris in 1609. His style is said to be equal to that of the most celebrated orators of ancient Greece.

GREGORY (David), F.R.S., Savilian professor of astronomy at Oxford. He was born at Aberdeen in 1661, and received the earlier parts of his education in that city. He completed his studies at Edinburgh; and, in the twenty-third year of his age, was elected professor of mathematics in the university of that city; and published, in the same year, Exercitatio Geometrica de Dimensione Figurarum, sive Specimen Methodi Generalis Dimetiendi Quasvis Figuras, Edinburgh; 1684, 4to. He saw very early the excellence of the Newtonian philosophy; and had the merit of being the first who introduced it into the schools by his public lectures at Edinburgh. 'He had,' says Mr. Whiston, 'already caused several of his scholars to keep acts, as we call them, upon

several branches of the Newtonian philosophy; whilst we at Cambridge, poor wretches, were ignominiously studying the fictitious hypothesis of the Cartesians.' In 1691, on the report of Dr. Bernard's intention of resigning the Savilian professorship of astronomy at Oxford, David Gregory went to London; and being patronised by Sir Isaac Newton, and warmly befriended by Mr. Flamstead, he obtained the vacant professorship, for which Dr. Halley was a competitor. This rivalship, however, instead of animosity, laid the foundation of friendship between these eminent men; and Halley soon after became the colleague of Gregory, by obtaining the professorship of geometry in the same university. Soon after his arrival in London, Mr. Gregory had been elected F.R.S.; and, previously to his election into the Savilian professorship, had the degree of M.D. conferred on him by the university of Oxford. In 1693 he published in the Philosophical Transactions a resolution of the Florentine problem de Testudine Veliformi quadribili; and he continued to communicate to the public, from time to time, many ingenious mathematical papers by the same channel. In 1695 he printed at Oxford Catoptricæ et Dioptricæ Sphæricæ Elementa; a work which contains the substance of some of his public lectures at Edinburgh. This valuable treatise was republished first with additions by Dr. William Brown, with the recommendation of Mr. Jones and Dr. Desaguliers; and afterwards by the latter, with an appendix containing an account of the Gregorian and Newtonian telescopes, together with Mr. Hadley's tables for the construction of both these instruments. In 1702 our author published at Oxford, Astronomiæ Physicæ et Geometrica Elementa; a work which is accounted his master-piece. It is founded on the Newtonian doctrines, and was esteemed by Sir Isaac Newton himself as a most excellent explanation and defence of his philosophy. In 1703 he published a folio edition of Euclid in Greek and Latin. Dr. Gregory engaged, soon after, with his colleague Halley, in the publication of Apollonius's Conics, but he had not proceeded far in this undertaking before he died, in the forty-ninth year of his age, at Maidenhead in Berkshire. To the genius and abilities of David Gregory, the most celebrated mathematicians of the age, Sir Isaac Newton, Dr. Halley, and Dr. Keill, have given ample testimonies. Besides those works published in his lifetime, he left in MS. A Short Treatise of the Nature and Arithmetic of Logarithms, which is printed at the end of Dr. Keill's translation of Commandine's Euclid; and a Treatise of Practical Geometry, which was afterwards translated, and published in 1745, by Mr Maclaurin.

Gregory (James), F.R.S., one of the most eminent mathematicians of the seventeenth century, was born at Aberdeen in 1638. He received his education in the languages at Aberdeen, and went through the usual course of academical studies in the Marischal College. At the age of twenty-four he published his treatise, entitled Optica Promota, seu abdita radiorum reflexorum et refractorum mysteria geometrice enucleata; cui subnectitur appendix subtilissimorum Astronomiæ Problematon Resolutionem Exhibens; London, 1663; in which work he first published an account of an invention of his own, and one of the most valuable of modern discoveries, viz. the reflecting telescope. This discovery attracted the attention of the mathematicians, who were soon convinced of its great importance to the sciences of optics and astronomy. The manner of placing the two specula upon the same axis appearing to Sir Isaac Newton to be attended with the disadvantage of losing the central rays of the larger speculum, he proposed an improvement on the instrument, by giving an oblique position to the smaller speculum, and placing the eye-glass in the side of the tube. But the Newtonian construction of that instrument has been long abandoned for the original or Gregorian, which is now universally employed where the instrument is of a moderate size; though Herschel preferred the Newtonian form for the construction of those immense telescopes, which he so successfully employed in observing the heavens. The university of Padua being then in high reputation for mathematical studies, James Gregory went thither soon after the publication of his first work; and fixing his residence there for some years, he published in 1667 Vera Circuli et Hyperboles quadratura: in which he propounded another discovery of his own, the invention of an infinitely converging series for the areas of the circle and hyperbole. To this treatise, when republished in 1668, he added a new work, entitled Geometriæ pars universalis, inserviens quantitatum curvarum transmutationi et mensuræ; in which he is allowed to have shown, for the first time, a method for the transmutation of curves. These works attracted the notice and the correspondence of the greatest mathematicians of the age, among whom were Newton, Huygens, and Wallis; and their author, being soon after chosen F.R.S. of London, contributed to enrich the Philosophical Transactions by many valuable papers. Through this channel he commenced a controversy with Huygens, occasioned by his treatise on the quadratures of the circle and hyperbole, to which that able mathematician had started some objections. In 1668 Mr. Gregory published at London his Exercitationes Geometricæ, which contributed still to extend his reputation. About this time he was elected professor of mathematics in the university of St. Andrews; an office which he held for six years. In 1674 he was called to fill the mathematical chair in the university of Edinburgh. This place he had held for little more than a year, when, in October, 1675, being employed in showing the satellites of Jupiter through a telescope to some of his pupils, he was suddenly seized with total blindness, and died a few days after, at the early age of thirty-seven. He was a man of an acute and penetrating genius.

Gregory (John), M.D., professor of medicine in the university of Edinburgh, was born at Aberdeen, in 1724. Losing his father, in the seventh year of his age, the care of his education devolved on his grandfather, Principal Chalmers, and on his elder brother, Dr. James Gregory, who, upon the resignation of his father a

short time before his death, had been appointed to succeed him in the professorship of medicine in King's College. The rudiments of his classical education he received at the grammar school of Aberdeen; and, under the eye of his grandfather, he completed, in King's College, his studies in the Latin and Greek languages, and in the sciences of ethics, mathematics, and natural philosophy. His master in philosophy and in mathematics was Mr. Thomas Gordon, professor of philosophy in King's College. In 1742 Mr. Gregory went to Edinburgh, where the school of medicine was then rising to that celebrity which has since so remarkably distinguished it. The Medical Society of Edinburgh, instituted for the free discussion of all questions relative to medicine and philosophy, had begun to meet in 1737. Of this society Mr. Gregory was a member in 1742, at the time when Dr. Mark Akenside, his fellow student and intimate companion, was a member of the same institution. In 1745 our author went to Leyden, and attended the lectures of those celebrated professors Gaubius, Albinus, and Van Royen. While at this place he had the honor of receiving from the King's College of Aberdeen, an unsolicited degree of M.D. and soon after, on his return from Holland, was elected professor of philosophy in that university. In this capacity he read lectures in 1747, 1748, and 1749, on mathematics, and on experimental and moral philosophy. In the end of 1749, however, he resigned his professorship of philosophy, his views being turned chiefly to the practice of physic. Previously, however, to his settling as a physician at Aberdeen, he went for a few months to the continent. Some time after his return to Scotland, Dr. Gregory married, in 1752, Elizabeth, daughter of William lord Forbes, and with her he received a handsome addition to his fortune. Of her character it is enough to say, that her husband, in his work, entitled A Father's Legacy to his Daughters, declares, that, 'while he endeavours to point out what they should be, he draws but a very faint and imperfect picture of what their mother was.' The field of medical practice at Aberdeen being at that time in a great measure pre-occupied by his elder brother, Dr. James Gregory, and others, our author went to London in 1754, and in the same year was chosen F.R.S. In this city his professional talents would doubtless have procured him a very extensive practice; but the death of his brother, Dr. James Gregory, in November, 1755, occasioning a vacancy in King's College, Aberdeen, which he was solicited to fill, he returned to his native country in 1756. Here our author remained till the end of 1764, when he changed his place of residence for Edinburgh, where, in 1766, on the resignation of Dr. Rutherford, he succeeded as professor of the practice of physic; and was appointed first physician to his majesty for Scotland, on the death of Dr. Whytt. On his first establishment in the university of Edinburgh, Dr. Gregory gave lectures on the practice of physic, in 1767, 1768, and 1769. Afterwards, by an arrangement with Dr. Cullen, professor of the theory of physic, these two eminent men gave alternate courses of the theory and the practice. The only lectures which he committed fully to writing, were those introductory discourses which he read at the beginning of his annual course, and which are published under the title of Lectures on the Duties and Qualifications of a Physician. These lectures were first published in 1770, and afterwards in an enlarged and more perfect form in 1772; when he also published Elements of the Practice of Physic, for the use of Students; a work intended solely for his own pupils, and to be used by himself as a text-book to be commented upon in his course of lectures. Dr. Gregory, soon after the death of his wife, and, as he himself says, 'for the amusement of his solitary hours,' employed himself in the composition of a tract, entitled A Father's Legacy to his Daughters; which was published after the author's death by his eldest son. These letters were evidently written under the impression of an early death, which Dr. Gregory had reason to apprehend from a constitution subject to the gout, which had begun to appear at irregular intervals even from his eighteenth year. His mother, from whom he inherited that disease, died suddenly in 1770, while sitting at table. In the beginning of 1773, in conversation with his son, Dr. James Gregory, the latter remarking, that having for the three preceding years had no return of a fit, he might expect a pretty severe attack at that season; he received the observation with some degree of vexation, as he felt himself then in his usual state of health. The prediction, however, was too true; for having gone to bed on the 9th of February, 1773, with no apparent disorder, he was found dead in the morning. His death had been instantaneous, and probably in his sleep; for there was not the smallest discomposure of limb or of feature,—a perfect Euthanasia.

Gregory (George), an English clergyman and general writer, was descended from a Scottish family, but born in Ireland, where his father was prebendary of Ferns. He was at twelve years old removed to Liverpool, and is said to have spent some years in a counting-house at that port. He, however, studied at Edinburgh, where he applied himself chiefly to mathematics and philosophy, and, having taken orders, obtained a curacy at Liverpool in 1778. In 1782 he became curate of Cripplegate, London, but resigned his office in 1785 on being elected morning preacher: he also officiated at the asylum. At this time he made himself known by the publication of a volume of Historical Essays. This was followed in 1789 by a Translation of bishop Lowth's Lectures on the Sacred Poetry of the Hebrews; after which appeared the Life of Chatterton, reprinted in the Biographia Britannica; Church History, 2 vols. 8vo.; a new translation of Telemachus; and the Economy of Nature, 3 vols. 8vo. In 1804, through the interest of lord Sidmouth, he was presented to the living of Westham in Essex, having previously obtained a small prebend in St. Paul's, which he resigned, on being preferred to the rectory of Stapleford in Hertfordshire. In his retirement at Westham he superintended the publication of a Dictionary of Arts and Sciences,

2 vols 4to. His last undertaking was, preparing for the press Letters on Literature and Taste, published after his death, which took place at Westham, March 12th, 1808, in the fifty-fourth year of his age.

Gregory (James), M.D. F.R.S., professor of physic in the university of Edinburgh, was born at Aberdeen in 1753. He was the author of various works on scientific subjects, and connected with his profession, and among them A dissertation De Morbis Cœli Mutatione Medendis, 8vo. 1774; Conspectus Medicinæ Theoreticæ, 1780, 2 vols. 8vo., which went through four editions; Philosophical and Literary Essays, 1792, 2 vols. 8vo; Memorial presented to the Managers of the Royal Infirmary of Edinburgh, 4to., 1800; Cullen's First Lines of the Practice of Physic, with Notes, 2 vols. 8vo. This latter work went through seven editions. He also published a paper in the Transactions of the Royal Society of Edinburgh, on the Theory of the Moods of Verbs. Dr. Gregory died April 2nd, 1821.

Gregory, Cape, a high rocky bluff, on the north-west coast of North America, nearly perpendicular. Captain Vancouver places this cape in lat. 43° 23′ N., long. 235° 50′ E.; captain Cook in lat. 43° 30′ N., long. 235° 57′ E.

GREIFSWALDE, a fortified town in Prussian Pomerania, on the Rick, and having a harbour at the influx of the river into the Baltic. Here are manufactures of tobacco and salt; also some maritime trade. Population 3800. The town is the seat of a university, founded as far back as 1456, but long fallen into decay: some new buildings were erected in 1750, but the number of students continues very small. The library belonging to it contains a number of MSS. on the history of Pomerania. Fifteen miles south-east of Stralsund.

GREIG (Samuel Carlowitz), an eminent naval officer in the Russian service, born at Inverkeithing in Fifeshire. While in the navy of Great Britain, he distinguished himself at the defeat of Conflans by admiral Hawke, the taking of the Havannah, and several other engagements in that successful war. After the peace of 1763 he entered into the Russian service; and there, at the battle of Chio, contributed principally, by his advice and exertions, to the destruction of the whole Turkish fleet. Sensible of his great professional merit, her imperial majesty promoted him, though a foreigner, to the chief command of the Russian navy, which he raised to a degree of respectability and importance it never before had attained. In reward of his great services, the empress bestowed on him many honorable marks of distinction, and an estate in Livonia, which his family now enjoy. In the last war between the Russians and Turks, which last were joined by the Swedes, he, in the Baltic, defeated the Swedish fleet; and had not a part of his squadron, through cowardice, refused to come into action, he probably had captured or sunk the whole of them. Soon after this he was seized with a fever, and died at Revel, on the 26th of October, 1788.

GRE'MIAL, *adj.* Lat. *gremium.* Pertaining to the lap.

GRENADA, one of the Caribbee islands, the last of the Windward Caribbees, lies thirty leagues north of New Andalusia, on the continent. According to some, it is twenty-four leagues in compass; according to others only twenty-two. It is twenty-eight miles long, and in some places fifteen broad. The chief port, formerly called Louis, now St. George's, stands on the west side of the island, in the middle of a large bay, with a sandy bottom. It is said that 1000 barks, from 300 to 400 tons, may ride secure from storms; and that 100 ships, of 1000 tons each, may be moored in the harbour. A large round basin, which is parted from it by a bank of sand, would contain a considerable number of ships, if the bank were cut through. The island abounds with game, fish, and very fine timber. A lake on a high mountain, about the middle of the island, supplies it with streams of fresh water. Several bays and harbours lie round the island, some of which might be fortified to great advantage; so that it is very convenient for shipping, not being subject to hurricanes. The soil is capable of producing tobacco, sugar, indigo, peas, and millet. On the west side it is a rich black mould, or a substratum of yellow clay. To the south the land is in general poor, and of a reddish hue, and the same extends over a considerable part of the interior country. On the whole, however, it appears to be fertile in a high degree, and by the variety, as well as excellence of its returns, seems adapted to every tropical production. Indigo, sugar, tobacco, coffee, cocoa, and cotton, thrive well in it. The rivers abound in eels, trout, and various other fish. In the woods are found in great numbers partridges, pigeons, thrushes, parrots, &c. Grenada contains about 80,000 acres of land; but the quantity actually cultivated has never exceeded 50,000. It is divided into six parishes, St. George, St. David, St. Andrew, St. Patrick, St. Mark, and St. John, and its chief dependency, Cariacou, forms a seventh parish. The other towns of Grenada, besides St. Georges, are, probably speaking, inconsiderable villages or hamlets, which are generally situated at the bays and shipping places in the several out-parishes.

In 1638 M. Poincy, a Frenchman, attempted to make a settlement in Grenada; but was driven off by the Caribbeans, who resorted to this island in greater numbers than to the neighbouring ones. In 1650 M. Parquet, governor of Martinico, carried over from that island 200 men, furnished with presents to reconcile the savages, and with arms to subdue them in case they should prove intractable. The savages are said to have been frightened into submission by the number of the Frenchmen: but, according to some French writers, the chief not only welcomed the new-comers, but, in consideration of some knives, hatchets, scissars, and other toys, yielded to Parquet the sovereignty of the island, reserving to themselves their own habitations. The abbé Raynal informs us, that these first French colonists, imagining they had purchased the island by these trifles, assumed the sovereignty, and soon acted as tyrants. The Caribs, unable to contend with them by force, took their usua.

method of murdering all those whom they found in a defenceless state. This produced a war; and the French settlers, having received a reinforcement of 300 men from Martinico, forced the savages to retire to a mountain; whence, after exhausting all their arrows, they rolled down great logs of wood on their enemies. Here they were joined by other savages from the neighbouring islands, and again attacked the French, but were defeated anew; and were at last driven to such desperation, that forty of them, who had escaped from the slaughter, jumped from a precipice into the sea, where they all perished, rather than fall into the hands of their enemies. From thence the rock was called le Morne des Sauteurs, or 'the hill of the leapers;' which name it still retains. The French then destroyed the habitations and all the provisions of the savages; but, fresh supplies of Caribbeans arriving, the war was renewed with great vigor, and great numbers of the French were killed. Upon this they resolved totally to exterminate the natives; and, having accordingly attacked the savages unawares, they inhumanly put to death the women and children, as well as the men; burning all their boats and canoes, to cut off all communication between the few survivors and the neighbouring islands. Notwithstanding all these barbarous precautions, however, the Caribbeeans proved the irreconcilable enemies of the French; and their frequent insurrections at last obliged Parquet to sell all his property in the island to the Count de Cerrillac in 1657. The new proprietor, who purchased Parquet's property for 30,000 crowns, sent thither a person of brutal manners to govern the island. He behaved with such insupportable tyranny, that most of the colonists retired to Martinico; and the few who remained condemned him to death after a formal trial. In the whole court of justice that tried this miscreant, there was only one man (called Archangeli) who could write. A farrier was the person who impeached: and he, instead of the signatures, sealed with a horse-shoe; and Archangeli, who performed the office of clerk, wrote round it these words in French, 'Mark of M. de la Brie, counsel for the court.' It was apprehended that the court of France would not ratify a sentence passed with such unusual formalities; and therefore most of the judges of the governor's crimes, and witnesses of his execution, disappeared. Only those remained whose obscurity screened them from the pursuit of the laws. By an estimate, taken in 1700, there were at Grenada no more than 251 white people, fifty-three free savages or mulattoes, and 525 slaves. The useful animals were reduced to sixty-four horses and 569 horned cattle. The whole culture consisted of three plantations of sugar and fifty-two of indigo. The island had been sold in 1664 to the French West India Company for 100,000 livres. This unfavorable state of affairs was changed in 1714, owing to the flourishing condition of Martinico. The richest ships from that island were sent to the Spanish coasts, and in their way touched at Grenada to take in refreshments. The privateering traders, who undertook this navigation, taught the people of that island the value of their soil, which only required cultivation. Some traders furnished the inhabitants with slaves and utensils to erect sugar plantations. An open account was established between the two colonies. Grenada was clearing its debts gradually by its rich produce, and the balance was on the point of being closed, when the war in 1744 interrupted the communication between the two islands, and stopped the progress of the sugar plantations. This loss was supplied by the culture of coffee, which was pursued during the hostilities with activity and eagerness. The peace of 1748 revived all the labors, and opened all the former sources of wealth. In 1753 the population of Grenada consisted of 1262 white people, 175 free negroes, and 11,991 slaves. The cattle amounted to 2968 horses and mules, 2456 horned cattle, 3278 sheep, 902 goats, and 331 hogs. The cultivation rose to eighty-three sugar plantations, 2,725,600 coffee-trees, 150,300 cocoa-trees, and 800 cotton plants. The provisions consisted of 5,740,450 trenches of cassado, 933,596 banana trees, and 143 squares of potatoes and yams. The colony made a rapid progress, in proportion to the excellence of its soil; but in 1762 the island was taken by the British. At this time one of the mountains at the side of St. George's harbour was strongly fortified, and might have made a good defence, but surrendered without firing a gun; and by the treaty concluded in 1763 the island was ceded to Britain. On this cession, and the management of the colony after that event, the abbé Raynal has the following remarks. 'This long train of evils,' the ambition and mismanagement of his countrymen, 'has thrown Grenada into the hands of the English, who are in possession of this conquest by the treaty of 1763. England has not made a fortunate beginning. In the first enthusiasm raised by an acquisition, of which the highest opinion had been previously formed, every one was eager to purchase estates there. They sold for much more than their real value. This caprice, by expelling old colonists who were inured to the climate, has sent about £1,553,000 out of the mother country. This imprudence has been followed by another. The new proprietors, misled, no doubt, by national pride, have substituted new methods to those of their predecessors. They have attempted to alter the mode of living among their slaves. The negroes, who from their very ignorance are more attached to their customs than other men, have revolted. It hath been found necessary to send out troops, and to shed blood. The whole colony was filled with suspicions. The masters, who had laid themselves under a necessity of using violent methods, were afraid of being burnt or massacred in their own plantations. The labors have declined, or been totally interrupted. Tranquillity has at length been restored. The number of slaves have been increased as far as 40,000, and the produce has been raised to the treble of what it was under the French government. The plantations will still be improved by the neighbourhood of a dozen of islands, called the Grenadilloes, that are dependent on the colony.' In 1779 the

conquest of this island was accomplished by D'Estaign the French admiral. Immediately after his conquest of St. Lucia, being reinforced by a squadron under M. de la Motte, he set sail for Grenada, with a fleet of twenty-six sail of the line, and twelve frigates, having on board 10,000 land forces. Here he arrived on the 2d of July; and landed 3000 troops, chiefly Irish, being part of the brigade composed of natives of Ireland in the service of France. These were conducted by count Dillon, who disposed them in such a manner as to surround the hill that commands George's Town, together with the fort and harbour. To oppose these, lord M'Cartney, the governor, had only about 150 regulars, and 300 or 400 armed inhabitants: but, though all resistance was evidently vain, he determined nevertheless to make an honorable and gallant defence. The preparations he made were such as induced D'Estaign himself to be present at the attack; and, even with his vast superiority of force, the first attack on the entrenchments proved unsuccessful. The second continued two hours; when the garrison were obliged to yield to the immense disparity of numbers who assaulted them, after having killed or wounded 300 of their antagonists. Having thus made themselves masters of the intrenchments on the hill, the French turned the cannon of them towards the fort which lay under it; on which the governor demanded a capitulation. The terms, however, were so extraordinary and unprecedented, that both the governor and inhabitants agreed in rejecting them; and determined rather to surrender without any conditions, than upon those which appeared so extravagant. On this occasion D'Estaign is said to have behaved in a very haughty and severe manner; indulging his soldiers also in the most unwarrantable liberties, and in which they would have proceeded much farther, had they not been restrained by the Irish troops in the French service. In the mean time admiral Byron, who had been convoying the homeward bound West India fleet, hastened to St. Vincent, in hopes of recovering it; but being informed, by the way, that a descent had been made at Grenada, he changed his course, hoping that lord M'Cartney would be able to hold out till his arrival. On the 6th of July he came in sight of the French fleet; and, without regarding D'Estaign's superiority of six ships of the line and as many frigates, determined if possible to force him to a close engagement. The French commander, however, was not so confident of his own prowess as to run the risk of an encounter of this kind; and, having already achieved his conquest, had no other view than to preserve it. His designs were facilitated by the good condition of his fleet; which, being more lately come out of port than that of the British, sailed faster, so that he was thus enabled to keep at what distance he pleased. The engagement began about eight in the morning, when admiral Barrington, with his own and two other ships, got up to the van of the enemy, which they attacked with the greatest spirit. As the other ships of his division, however, were not able to get up to his assistance, these three ships were necessarily obliged to encounter a vast superiority, and of consequence suffered exceedingly. The battle was carried on from beginning to end in the same unequal manner; nor were the British commanders, with their utmost efforts, able to bring the French to a close engagement. Thus captains Collingwood, Edwards, and Cornwallis, stood the fire of the whole French fleet for some time. Captain Fanshaw of the Monmouth, a sixty-four gun ship, threw himself singly in the way of the enemy's van; and admiral Rowley and captain Butchard fought at the same disadvantage; so that, finding it impossible to continue the engagement with any probability of success, a general cessation of firing took place about noon. It recommenced in the same manner about 3 P. M., and lasted, with different interruptions, till evening. During this action some of the British ships had forced their way into St. George's harbour, not imagining that the enemy were already in possession of the island. They were soon undeceived, however, by perceiving the French colors flying ashore, and the guns and batteries firing at them. This discovery put an end to the design which had brought on the engagement; and as it was now high time to think of providing for the safety of the British transports, which were in danger from the number of the enemy's frigates, the engagement was finally discontinued. During this action some of admiral Byron's ships had suffered extremely. The Lion of sixty-four guns, captain Cornwallis, was found incapable of rejoining the fleet, which were plying to windward; and was therefore obliged to bear away alone before the wind. Two other ships lay far astern in a very distressed situation; but no attempt was made to take them, nor did the French admiral show the least inclination to renew the engagement. Grenada was restored to Great Britain by the peace in 1783. George's Town, or St. George's, is the residence of the governor, and the governor, general Matthew, made a present to the citizens of a clock and bells in 1790. The garrison then consisted of artillery, two regiments of Europeans, and one of blacks. As there are several small islands subject to the laws enacted in Grenada, they each elect a person to represent them in the general assembly, which is always held in St. George's. As none of the Grenadines have a harbour fit for large vessels, the produce of them is conveyed in small vessels to St. George's, whence it is exported to the different places of Europe, Africa, America, &c. Although by the peace of 1763, all the French inhabitants who inclined to remain in the island became invested with the privileges of British subjects, and although these privileges were confirmed in 1768, yet the treatment which they experienced from the British settlers, proved so extremely oppressive, that they at last broke out into a formidable insurrection. On the 2d of March, 1795, the old French inhabitants, being joined by the mulattoes under Fedon, seized the towns of Grenville and Gouyave, plundered the former, murdered eleven of the English inhabitants, and took the rest prisoners. On the 5th, 130 troops were sent against the rebels, but were obliged to retreat. The most barbarous massacres now

took place on both sides; and general Lindsey, finding himself unable to quell the insurrection, put an end to his own life. On the 16th of April general Nichols, arriving from Martinico, assumed the command, and various engagements took place, wherein sometimes the insurgents and sometimes the British had the advantage. In this distracted state the island continued till December 1795, when the French landed a body of troops, who joined the rebels, and reduced great part of the island; but on the 10th of July 1796 the French commandant, Jossey, surrendered all the French posts by capitulation to the British under general Abercrombie; and Fedon and his associates escaped into the woods, after having murdered all their prisoners. The British obtained complete possession on the 19th of June; Grenada is 123 miles south-west of Barbadoes, and seventy-one north-west of Tobago. Long. 61° 40′ W., lat. 12° 0′ N.

GRENADE,' *n. s.* } Fr. *grenadier;* Latin
GRENADIER,' } *granatum.* A globe or
GRENA'DO. } ball of iron, or other metal, which, being filled with gun-powder, is set on fire by means of a fusee. Grenadier is a foot soldier, of whom there was one company formerly in every regiment: such men being employed to throw grenades.

Yet to express a Scottish enterprize,
Not all those mouth *grenados* can suffice.
Cleaveland.

You may as well try to quench a flaming *grenado* with a shell of fairwater, as hope to succeed. *Watts.*

Peace allays the shepherd's fear
Of wearing cap of *grenadier*. *Gay's Pastorals.*

GRENADE, or GRANADO, is a kind of small bomb or shell, of the same diameter as a four-pound bullet; it weighs about two pounds, being charged with four or five ounces of powder, and is thrown by the hand, whence they are most generally styled hand-grenades. They have a touch-hole in the same manner as a shell, and a fusee of the same composition. The fusee is fired with a match, and the grenades being thrown the powder becomes inflamed, and the shell instantly bursts into splinters, that kill or maim whomsoever they may reach. They were invented about 1594. The author of the Military Dictionary has the following remark on the use of grenades: 'Grenades have unaccountably sunk into disuse, but we are persuaded there is nothing more proper than to have grenades to throw among the enemy who have jumped into the ditch. During the siege of Cassel, under count de la Lippe, in the campaign of 1762, a young engineer undertook to carry one of the outworks with a much smaller detachment than one which had been repulsed, and succeeded with ease from the use of grenades; which is a proof that they should not be neglected, either in the attack or defence of posts.'

GRENADIER, GRANADIER, a foot soldier armed with firelock, bayonet, and in some services with a hanger; grenadiers carry, besides their arms, a cartridge box that will hold thirty-six rounds. They are clothed differently from the rest of the battalion they belong to, by wearing a high cap, fronted with a plate of brass, on which the king's arms is generally represented, &c., and a piece of fringed or tufted cloth upon their shoulders, called a wing: in some armies they have more pay than a common soldier. They are always the tallest and stoutest men, consequently the first upon all attacks. Every battalion of foot has generally a company of grenadiers belonging to it, which takes the right of the battalion.

GRENADILLOES, or GRENADINES. See GRANADILLOES. These islands are from three to eight leagues each in circumference, but are said to be all destitute of water, except the island Cariacou, wherein one spring has been discovered by digging, which is kept locked up by the proprietor. The capital of that island is Hilsborough, which has a church. See GRENADA.

GRENAILLE, a name given by the French writers to a preparation of copper, which the Chinese use as a red color in some of their finest China, particularly for that color which is called oil-red, or red in oil.

GRENOBLE, a large, populous, and ancient town of France, in the department of Isere, and ci-devant province of Dauphiny, anciently Accusiorum Colonia. It contains a great number of handsome structures, particularly churches, and ci-devant convents. It is seated on the Isere, over which there are two bridges leading into a single street, of great length, and having the appearance of a suburb. Grenoble, though not a fine town, has several spacious squares. It is surrounded with ramparts, and entered by drawbridges; its population is about 23,000. Among the public buildings that attract the attention of travellers is the ancient Hotel de Lesdiguieres, now the town-house: the court house; and the cathedral, a heavy edifice in the Gothic style. On an eminence, near the middle of the town, stand the ruins of a once strong citadel, called the Bastile. From the summit is enjoyed a delightful view as far as Mont Blanc, a distance of thirty leagues. Outside of the town are two hospitals, one for the military, another, on a larger scale, for the poor in general. The literary and scientific institutions are a small university, a provincial school, an academy of arts and sciences established in 1796, societies of medicine and agriculture, the schools of surgery and midwifery, and the artillery school. To these institutions belong a library of 60,000 volumes, a museum, a botanical garden, a cabinet of natural history, and a small cabinet of antiquities.

The principal manufactures are of gloves, cotton articles, and different kinds of liqueurs. Its glove manufactures have long been celebrated, and employ nearly one-fourth of the population. It has likewise manufactures of hemp. Its commerce is favored by the Isere, which is navigable to a considerable distance above the town, and is made to convey quantities of timber, hemp, flax, linen, leather, iron, and marble. Grenoble is likewise the staple for the cheese made near Sassenage, a village in the neighbourhood. It was formerly the seat of the governor and parliament of Dauphiny, and is now the residence of the prefect of the departmen of one of the higher, and of several smaller courts of justice. It is likewise the head-quarters of a military division, and the see of a bishop. The climate here is

very variable, and affected by the exhalations from the neighbouring marshes. This was the first place of note that opened its gates to Napoleon on his return from Elba; he entered it 8th March 1815. Twenty-seven miles south of Chamberry.

GRENOUILLES, Les, a cluster of rocks in the West Indian Ocean, about thirty-six miles south-east from Point Morand, in the island of Jamaica.

GRESHAM (Sir Thomas), an opulent merchant in London, descended from an ancient family of Norfolk. He was born in 1519. His father was king's agent at Antwerp, and Sir Thomas, being appointed to the same office in 1551, removed to that city with his family. This employment was suspended, on the accession of queen Mary, but was restored to him again. Queen Elizabeth knighted him, and made him her agent in foreign parts. About this time he built a large mansion-house on the west side of Bishopsgate Street, since named Gresham College. He now proposed to build a house or exchange for the merchants to meet in, instead of walking in the open street; and offered, if the citizens would provide a proper piece of ground, to build the exchange at his own expense; which being accepted, he fulfilled his promise after the plan of the exchange at Antwerp. On the 29th of January 1570, when the new edifice was opened, the queen came and dined with the founder; and caused a herald with a trumpet to proclaim it by the name of the Royal Exchange. In pursuance also of a promise to endow a college for the profession of the seven liberal sciences, he made a testamentary disposition of his house in London for that purpose. See College. He left several other benefactions, and died in 1579. He was a great friend and patron of the celebrated martyrologist, John Fox. He was well acquainted with the ancient and several modern languages; and had a very comprehensive knowledge of foreign and domestic commerce. He transacted queen Elizabeth's mercantile affairs so constantly that he was called the royal merchant; and his house was sometimes appointed for the reception of foreign princes upon their first arrival in London.

Gresham College. See College.

GRESSIE, or Gressec, a town on the north-east coast of Java, and formerly the capital of a kingdom. It has comparatively few European inhabitants, but the native population and the Chinese are numerous. The latter have a temple reared by their own priests. The saltpetre works are very extensive; but the want of good water, and the general unhealthiness of the place, may be considered as the causes of its decline. Long. 112° 50′ E., lat. 7° 9′ S.

GREVILLE (Fulke), lord Brook, a poet and miscellaneous writer, born in 1554, and descended from the noble families of Beauchamps of Powick and Willoughby de Brook. In company with his cousin Sir Philip Sidney, he began his education at a school in Shrewsbury: thence he went to Oxford, and afterwards to Cambridge. He next visited foreign courts, and, on his return to England, was introduced to queen Elizabeth by his uncle Robert Greville; and by means of Sir Henry Sidney, lord president of Wales, was nominated to some lucrative employments in that principality. He continued a constant attendant at court, and a favorite with the queen to the end of her reign; during which he obtained the office of treasurer of marine causes, a grant of the manor of Wedgnock, and the honor of knighthood. In her reign he was several times elected M. P. for Warwickshire, and his name often appears in committees. On the accession of king James I. he was installed knight of the Bath; and soon after obtained a grant of the ruinous castle of Warwick, which he repaired at a considerable expense. In 1614 he was made under treasurer, chancellor of the exchequer, one of the privy council, and gentleman of the bed chamber; and in 1620 he was raised to the dignity of baron. He was also privy-counsellor to king Charles I., in the beginning of whose reign he founded a history lecture in Cambridge. Having thus attained the age of seventy-four, through a life of continued prosperity, universally admired as a gentleman and a scholar, he fell by the hands of an assassin, one of his own domestics, who immediately stabbed himself with the same weapon with which he had murdered his master. This fellow's name was Haywood; and the cause is said to have been a severe reprimand, for his presumption in upbraiding his master for not providing for him after his death. He had been witness to lord Brook's will, and knew the contents. Lord Brook was buried with great pomp in St. Mary's church at Warwick, in his own vault, over which he had erected a monument of black and white marble, ordering at his death the following inscription to be engraved upon his tomb: 'Fulke Greville, servant to queen Elizabeth, counsellor to king James, and friend to Sir Philip Sidney. Trophæum Peccati.' He wrote several works in verse and prose, among which are two tragedies, Alaham and Mustapha. A Treatise of Human Learning, &c., in verse, folio. The life of Sir Philip Sidney. An Inquisition upon Fame and Honor, in eighty-six stanzas. Cecilia, a collection of 109 songs. His Remains, consisting of political and philosophical poems.

GREUT, *n. s.* A kind of fossile body.

> A sort of tin ore, with its *greut*; that is, a congeries of crystals, or sparks of spar, of the bigness of baysalt, and of a brown shining colour immersed therein. *Grew's Museum.*

GREW. The preterite of Grow, which see.

> The pleasing task he fails not to renew;
> Soft and more soft at every touch it *grew*.
> *Dryden.*

GREW (Nehemiah), a learned English writer, of the seventeenth century, who had considerable practice as a physician in London, and succeeded Mr. Oldenburgh in the office of secretary to the Royal Society. In this capacity, pursuant to an order of council, he drew up a catalogue of the natural and artificial rarities belonging to the society, under the title of Musæum regalis Societatis, &c., 1681. He also wrote besides several pieces in the Philosophical Transactions, 1. The Comparative Anatomy of the Stomach and Entrails, folio. 2. The Anatomy of Plants, folio. 3. Tractatus de salis Cathartici natura et usu. 4. Cosmologia

Sacra, or a Discourse of the Universe as it is the Creature and Kingdom of God, folio. He died suddenly in 1721.

GREWIA, in botany, a genus of the polyandria order, and gynandria class of plants: natural order thirty-seventh, columniferæ: CAL. pentaphyllous; petals five, each with a nectariferous scale at the base; berry quadrilocular. Eleven species: the chief are,

1. G. Africana, with oval spear-shaped serrated leaves, a native of Senegal in Africa, whence its seeds were brought by Mr. Adanson. In this country it rises with a shrubby stalk five or six feet high, sending out many lateral branches, with a brown hairy bark, and garnished with spear-shaped serrated leaves; but the plants do not flower in Britain. This species is tender, and must be kept constantly in a warm bark stove. In summer it requires a large share of the free air, and should have water three or four times a week in warm weather; but in winter they must be sparingly watered The negroes of Senegal highly value a decoction of the bark, and use it as a never-failing remedy against venereal complaints.

2. G. occidentalis, with oval crenated leaves. It is a native of the Cape of Good Hope, and grows to the height of ten or twelve feet. The stem and branches greatly resemble those of the small leaved elm, the bark being smooth, and of the same color with that when young. The leaves are also very like those of the elm, and fall off in autumn. The flowers are produced singly along the young branches from the wings of the leaves, and are of a bright purple color. This species, though a native of a warm climate, will bear the open air in this country; only requiring to be sheltered in a green-house during winter. It may be propagated by cuttings, or layers, planted in pots filled with soft loamy earth.

GREY, *adj.* Fr. *gris*. More properly written gray. See GRAY.

This ancient ruffian, Sir, whose life I spared at suit of his *grey* beard. *Shakspeare. King Lear.*

Our green youth copies what *grey* sinners act,
When venerable age commends the fact. *Dryden.*

GREY (Lady Jane), a most illustrious and unfortunate lady, descended of the blood royal of England by both parents, was the eldest daughter of Henry Grey, marquis of Dorset, and Frances, the daughter of Charles Brandon, lord Suffolk, by Mary, the dowager of Louis XII. king of France, who was the youngest daughter of Henry VII. king of England. She was born in 1537, at Broadgate, her father's seat, in Leicestershire. She discovered an early propensity to all kinds of literature; and having considerable genius, improved under the tuition of Mr. Aylmer, afterwards bishop of London, she made a surprising progress in the languages, arts, and sciences. She understood various branches of philosophy, and could express herself in Latin and Greek. Sir Thomas Chaloner (Strype's Memorials, vol. iii. p. 93), says, that she was well versed in Hebrew, Chaldee, Arabic, French, and Italian. He adds, that 'she played well on instrumental music, writ a curious hand, and was excellent at the needle.' In 1553 the dukes of Suffolk and Northumberland, who were now, after the fall of Somerset, arrived at the height of power, began, on the decline of king Edward's health, to think how to prevent any reverse of fortune upon his death. No other remedy was judged sufficient but a change in the succession of the crown, and transferring it into their own families, by rendering Lady Jane queen. Those excellent and amiable qualities, which had rendered her dear to all who had the happiness to know her, joined to her near affinity to the king, subjected her to become the chief tool of ambition not her own. With this view she was married to lord Guildford Dudley, fourth son of the duke of Northumberland, without discovering to her the real design of the match; which was celebrated with great pomp in the end of May; and was so much to the king's satisfaction that he contributed largely to the expense of it. Edward VI. died in July following; and Lady Jane, with infinite reluctance, overpowered by the solicitations of her ambitious friends, allowed herself to be proclaimed queen of England, on the strength of a deed extorted from that prince by her father-in-law, the duke of Northumberland, which set aside the succession of queen Mary, queen Elizabeth, and Mary queen of Scots. Her regal pageantry continued but a few days. Queen Mary's hereditary right prevailed; and the unfortunate Lady Jane Grey and her husband were committed to the tower, and on the 13th of November arraigned and found guilty of high treason. On the 12th of February following they were both beheaded on Tower-hill. Her magnanimity in this dreadful scene was astonishing. Immediately before her execution, she addressed herself to the weeping multitude with composure and coherency. Feckenham, Mary's chaplain, visited her in the Tower, and tried to convert her to the Catholic faith, but found her by far his superior in argument. Her writings are, 1. Four Latin Epistles; three to Bullenger, and one to her sister lady Catharine. The last was written the night before her execution, in a blank leaf of a Greek Testament: a circumstance which seems to have led Dr. Watkins, in his Biographical Dictionary, to say it was written 'in the Greek language.' These letters are printed in a work entitled Epistolæ Helveticæ Reformatoribus, vel ad eos scriptæ, &c., Tiguri, 1742, 8vo. 2. Her Conference with Feckenham. Ballard. 3. A letter to Dr. Harding, her father's chaplain. Printed in the Phœnix, vol. ii. p. 28. 4. A Prayer for her own use during her confinement. In Fox's Acts and Monuments. 5. Four Latin verses; written in prison with a pin. They are as follows:—

Non aliena putes, homini quæ obtingere possunt:
Sors hodierna mihi, cras erit illa tibi.
Jane Dudley.

To mortals' common fate thy mind resign,
My lot to-day to-morrow may be thine!

Deo juvante, nil nocet livor malus:
Et non juvante, nil juvat labor gravis.
Post tenebras spero lucem.

Freely rendered thus:

Harmless all malice if our God be nigh,
Fruitless all pains, if he his help deny;
Patient I pass these gloomy hours away
And wait the morning of eternal day.

6. Her speech on the Scaffold. It began thus: 'My Lords, and you, good Christian people, who come to see me die, I am under a law, and by that law, as a never-erring judge, I am condemned to die; not for any thing I have offended the queen's majesty; for I will wash my hands guiltless thereof, and deliver to my God a soul as pure from such trespass as innocence from injustice; but only for that I consented to the thing I was forced unto, constraint making the law believe I did that which I never understood,' &c. Hollingshed, Sir Richard Baker, Bale, and Fox, tell us that she wrote several other things, but do not mention where they are to be found.

Grey (Richard), D. D., a learned English divine, born in 1693, and educated at Oxford, where he took the degree of M. A. in 1719. He obtained the rectories of Kimcote in Leicestershire, and Hinton in Northamptonshire, with other benefices. He published many sermons and religious tracts; besides the following:—Memoria Technia, or a New Method of Artificial Memory; of which the first edition was printed in 1730, and a fourth in 1756; A System of English Ecclesiastcal Law, 8vo. 1741; The Miserable and Distracted State of Religion in England, upon the Downfall of the Church Established, 8vo., 1736; A New and Easy Method of Learning Hebrew without Points, 1738; Historia Josephi, et Paradigmata Verborum, 1739; Liber Jobi, 1742; Answer to Warburton's Remarks, 1744; Nova Methodus Hebraicè discendi, &c., 1751; and A Translation of Mr. H. Browne's poem, De Animi Immortalitate. He was married; and died February 28th, 1771, aged seventy-eight, leaving several daughters.

Grey (Zachary), L L. D., an English divine, born in 1687. He studied and graduated at Cambridge. He was vicar of St. Giles's and St. Peter's in Cambridge, and was author of about thirty different works; particularly, An Answer to Neale's History of the Puritans; 3 vols. 8vo. His edition of Hudibras, 1744, was satirised by Warburton and Henry Fielding He died in 1766, aged seventy-nine.

GRE'YHOUND, *n. s.* Sax. ȝꞃiȝhunɒ. A tall fleet dog that chases in sight.

> *Greihoundes* he hadde as swift as foul of flight.
> *Chaucer. Prologue to Canterbury Tales.*

> First may a trusty *greyhound* transform himself into a tyger. *Sidney.*

> So, on the Downs we see, near Wilton fair,
> A hastened hare from greedy *greyhounds* go. *Id.*

> The impatient *greyhound*, slipt from far,
> Bounds o'er the glebe to catch the fearful hare.
> *Dryden.*

Greyhound. See Canis and Dog. Among a litter of greyhound's puppies, the best are always those which are lightest. These will make the nimblest dogs as they grow up. The qualities of a good greyhound are well expressed in the following lines. According to them he is to have

> A Head like a snake
> Neck like a drake,
> Back like a beam,
> Side like a bream,
> Tail like a rat,
> Foot like a ca·

In breeding these dogs, the bitch is principally to be regarded; for it is found by experience, that the best dog and a bad bitch will not get so good puppies, as an indifferent dog with a good bitch. The dog and bitch should be as nearly as possible of the same age; and, for breeding perfect dogs, they should not be more than four years old. An old bitch may be used with a young dog, but the puppies of a young bitch and an old dog will never be good for any thing. the general food for a greyhound is chippings or raspings of bread, with soft bones and gristles; and those chippings ought always to be soaked in beef or mutton broth. The proper exercise is coursing him three times a-week, and rewarding him with blood; which will animate him in the highest degree, and encourage him to prosecute his game. But the hare, also, should always have fair play. She should have the law, as it is called; that is, have leave to run about twelve score yards before the dog is slipped at her, that he may have some difficulty in the course, and not pick up the game too easily. If he kills the hare he must never be suffered to tear her; but she must be taken from him, his mouth cleaned of the wool, and the liver and lights given him by way of encouragement. Then he is to be led home, and his feet washed with butter and beer, and about an hour after he is to be fed. When the dog is to be taken out to course, he should have nothing in the morning but a toast and butter, and then he is to be kennelled till taken out to the field. The kennelling these dogs is of great use, always giving them spirit and nimbleness when they are let loose. The best way of managing a fine greyhound is never to let him stir out of the kennel, except when feeding, walking, or coursing.

GREYWACKE, a mountain formation, consisting of two similar rocks, which alternate with and pass into each other, called greywacke, and greywacke-slate. The first possesses the characters of the formation. It is a rock composed of pieces of quartz, felspar, and slate, cemented by a clay-slate basis. These pieces vary in size from a hen's egg to little grains. When the texture becomes exceedingly fine-grained, the rock constitutes greywacke-slate. Its color is usually ash or smoke-gray, and glimmers from interspersed scales of mica. It contains quartz veins, but no beds of quartz Petrifactions are found in it. These rocks are stratified, forming, when alone, round-backed hills, with deep valleys between them. Immense beds of trap, flinty-slate, and transition limestone, are contained in this formation; as well as numerous metallic ores in beds and large veins.

GREZZANA, or Grezzano, a town of the Veronese, in Maritime Austria, according to the division of that province between the emperor and the Cisalpine republic, made by the treaty of Campo Formio, in 1797; but by the conquest of the Veronese, by the French and Cisalpines under general Brune in December, 1800, and subsequent annexation of the whole province, it became part of the Cisalpine republic. This town is twelve miles north of Verona, and two of Breonio; and is seated near the Bridge of Beja, a remarkable bridge formed by nature,

which connects two hills together. Its arch is fifty Veronese feet broad, and no fewer than 114 feet high.

GRIAS, in botany, a genus of the monogynia order, and polyandria class of plants: COR. tetrapetalous: CAL. quadrifid; the stigma sessile and cruciform: the fruit is a plum with an eight-furrowed kernel. There is but one species, viz. G. cauliflora, the anchovy pear, a native of Jamaica. The leaves are nearly oval, and about three feet long. It has a straight stem, upon the upper part of which come forth the flowers. The fruit is large, and contains a stone with eight furrows. These fruits are eaten by the inhabitants.

GRIBALDUS (Matthew), a learned civilian of Padua, who left Italy in the sixteenth century, in order to make a public profession of the Protestant religion. After having been for some time professor of the civil law at Tubingen, he was obliged to leave it, having imbibed some doubts respecting the doctrine of the Trinity: but he was seized at Berne, where he would have met with very severe treatment, had he not renounced his opinions. He however relapsed again, and would certainly have been put to death, had he not died of the plague in 1664. He wrote De Methodo ac Ratione Studendi in Jure Civili; and several other works which are held in general estimation.

GRIBNER (Michael Henry), a learned civilian of Germany, born at Leipsic in 1682. After writing some time in the Journal of Leipsic, he was made professor of law at Wittemberg: whence he passed to Dresden, and was at last recalled to Leipsic to succeed M. Mencke. He died in 1734. Besides several academical dissertations, he wrote 1. Principia Processus Judiciarii; 2. Principia Juris Prudentiæ Naturalis, a small work much esteemed; 3. Opuscula Juris Publici et Privati.

GRICE, *n. s.* Dan. and Swed. *gris*. A step or greeze; a little pig.—Gouldman.

No, not a *grice*;
This a step to love.
Shakspeare. Twelfth Night.

To GRIDE, *v. n.* Ital. *gridare*. To cut: to make way by cutting. A word elegant, but not in use.

His poignant spear he thrust with puissant sway,
That through his thigh the mortal steel did *gride*.
Spenser.

So sore
The *griding* sword, with discontinuous wound,
Passed through him. *Milton's Paradise Lost.*

GRI'DELIN, *adj.* Fr. *gris de lin*. A color mixed of white and red.

The ladies dressed in rich symars were seen
Of Florence satin, flowered with white and green,
And for a shade betwixt the bloomy *gridelin*.
Dryden.

GRI'DIRON, *n. s.* Isl. *grind*, a grate, and iron. A portable grate on which meat is laid to be broiled upon the fire.

He had added two bars to the *gridiron*.
Spectator.

GRIEF, *n. s.*
GRIEV'ANCE, *n. s.*
GRIEVE, *v. a.* & *v. n.*
GRIEV'INGLY, *adv.*
GRIEV'OUS, *adj.*
GRIEV'OUSLY, *adv.*
GRIEV'OUSNESS, *n. s.*

Fr. *grever*; Italian, *grave*; Flem. *griever*; Welsh *griff*; Lat. *gravis*. Sorrow and regret for something past; pain or disease; injury; a harm; whatever lies as a weight upon the heart. The verb signifies to afflict; to injure or make sorrowful: when applied to faults, the word grievous is expressive of atrocity; it also sometimes implies discontent; to be in pain; to mourn; to sorrow, as for the death of friends. It has sometimes *at* and sometimes *for* before the cause of grief; perhaps *at* is proper before our misfortnnes, and *for* before our faults.

It repented the Lord that he had made man on the earth, and it *grieved* him at his heart. *Gen.* vi.

They fled from the swords, from the drawn sword, and from the bent bow, and from the *grievousness* of war. *Is.* xxi. 15.

For he doth not afflict willingly, nor *grieve* the children of men. *Luke* iii. 33.

Forty years long was I *grieved* with this generation. *Psalms.*

She was to blamè me to leve;
The whiche now doeth me sorè *grieve*.
Chaucer. Romaunt of the Rose.

The aire of the place so attempre was,
That ner was ther *grevaunce* of hot ne cold
There was, eke, every wholesome spice and gras;
Ne no man maie there waxen sike ne old.
Id. The Assemble of Foules.

And overmore, distrained with sicknesse,
Beside all this he was full *grevouslie*.
Id. Complaint of the Blacke Knight.

Wide was the wound, and a large lukewarm flood,
Red as the rose, thence gushed *grievously*. *Spenser.*

Next him went *Griefe* and Fury, matcht yfere;
Grief all in sable sorrowfully clad,
Downe hanging his dull head with heavy chere,
Yet inly being more then seeming sad.
Id. Faerie Queene.

I see how a number of souls are, for want of right information, oftentimes *grevously* vexed. *Hooker.*

To the flesh, as the apostle himself granteth, all affliction is naturally *grievous*. *Id.*

Crying sins I call those which are so heinous, and in their kind so *grievous*, that they hasten God's judgment, and call down for speedy vengeance upon the sinner. *Perkins.*

When one man kills another, thinking that he killeth a wild beast; if the same man remembereth afterwards what he hath done, and is not *grieved* for the fact, in this case he hath sinned; because his not *grieving* is offensive unto God, though the fact were merely besides his will. *Id.*

Grittus perceiving how *grievously* the matter was taken, with the danger he was in, began to doubt. *Knolles.*

He cannot come, my lord: he's *grievous* sick.
Shakspeare.

Be factious for redress of all these *griefs*.
And I will set this foot of mine as far
As who goes farthest. *Id.*

The king hath sent to know
The nature of your *griefs*, and whereupon
You conjure from the breast of civil peace
Such bold hostility? *Id. Henry IV.*

Do not you *grieve* at this. *Id.*

Grievingly, I think,
The peace between the French and us not values
The cost that did conclude it. *Id. Henry VIII.*

I will instruct my sorrows to be proud;
For *grief* is proud, and makes his owner stout.
Shakspeare.

It was a *grievous* fault,
And *grievously* hath Cæsar answered it. *Id.*

At thy appearance *Grief* itself is said
To shake his wings and rouse his head.
Cowley.

It *grieves* me when I see what fate
Does on the best of mankind wait. *Id.*

He durst not disobey, but sent *grievous* complaints to the parliament of the usage he was forced to submit to. *Clarendon.*

How didst thou *grieve* then, Adam, to behold
The end of all thy offspring end so sad. *Milton.*

Balms for the *grieved* we draw and pastes
We mould as baits for curious tastes. *Marvell.*

What magic could me thus confine
Within another's *grief* to pine? *Id.*

With equal mind what happens let us bear;
Nor joy nor *grieve* too much for things beyond our care. *Dryden.*

Houses built in plains are apt to be *grievously* annoyed with mire and dirt. *Ray on the Creation.*

Wringing of the hands, knocking of the breast, are but the ceremonies of sorrow, the pomp and ostentation of an effeminate *grief*, which speak not so much the greatness of the misery as the smallness of the mind. *South.*

The mother was so much afflicted at the loss of a fine boy, who was her only son, that she died for *grief* of it. *Addison.*

Grieved at the thought, he vowed his whole endeavour
Should be to close those breaches. *Rowe.*

Love, Hope, and Joy, fair Pleasure's smiling train;
Hate, Fear, and *Grief*, the family of Pain. *Pope.*

What remedy can be found against *grievances*, but to bring religion into countenance, and encourage those who, from hope of future reward, and dread of future punishment, will be moved to justice and integrity? *Swift.*

To own a great but *grievous* truth, though they quicken and sharpen the invention, they corrupt the temper. *Watts.*

Yet leave me not; I would allay that *grief*,
Which else might thy young virtue overpower;
And in thy converse I shall find relief
When the dark shades of melancholy lower.
Beattie.

Ah, how shall I pursue
My theme! To heart-consuming *grief* resigned,
Here on his recent grave I fix my view,
And pour my bitter tears. Ye flowery lays adieu!
Id.

GRIEF. The influence of this passion on the body is very great. Its effects resemble in several instances those of fear, with, however, some variations, owing perhaps to its being in general of longer duration. Grief diminishes the bodily strength in general, and particularly the force of the heart and circulation; as appear by the frequent sighs and deep respirations which attend it, which seem to be necessary exertions, in order to promote the passage of the blood through the lungs. It diminishes perspiration, obstructs the menstrual discharge, produces paleness of the skin, and œdematous complaints, and scirrhus of the glandular parts. It aggravates the scurvy, and the malignity of putrid and contagious distempers; and renders people more apt to receive the infection of them. When it comes on suddenly, and in a great degree, it causes a palpitation of the heart, and renders the pulse irregular. Blindness, gangrene, and sudden death, have followed the excess of this sensation. Its effects of changing the color of the hair are well known. Opiates, in small doses, are good cordials in this case.

GRIELUM, in botany, a genus of the pentagynia order, belonging to the decandria class of plants: CAL. quinquefid: there are five petals: the filaments persisting: and five monospermous seed-cases. Species one only; an Ethiopian shrub.

GRIERSON (Constantia), a native of Ireland, was born of poor parents, and died at the age of twenty-seven, in 1733. She was an excellent Greek and Latin scholar; and studied history, divinity, philosophy, and mathematics. She proved her skill in Latin by the dedication of the Dublin edition of Tacitus to lord Carteret, and by that of Terence to his son; to whom she also addressed a Greek epigram. She wrote many elegant English poems, several of which were inserted by Mrs. Barber among her own. When lord Carteret was lord-lieutenant of Ireland, he obtained a patent for Mr. Grierson to be the king's printer; and, to reward the uncommon merit of his wife, caused her life to be included in it.

GRIESBACH (John James), a celebrated German divine and critic, was born at Buzbach in Hesse Darmstadt, where his father was a Lutheran minister. He studied at the universities of Frankfort, Tubingen, Halle, and Leipsic; and finally became professor of theology at Halle. In 1774 he published an edition of the Historical Books of the Christian Scriptures, 2 vols 8vo., with a copious collection of various readings. The remaining books of the New Testament were subsequently given to the world in the same manner; and an improved edition of the whole work, under the patronage of the late duke of Grafton, in 4 vols. 4to. reprinted in 2 vols. 8vo. both in German and English. Griesbach was also the author of Symbolæ Criticæ ad supplendas et corrigendas variarum Novi Testamenti Lectionum, 1785—1793, 2 vols. 8vo., and many other valuable biblical works. He removed from Halle to Jena, where he became professor of theology, rector of the university, and privy counsellor for ecclesiastical affairs to the duke of Saxe Weimar. He died here in March 1812, aged sixty-seven.

GRI'FFIN, *n. s.* } This should rather be
GRIFFON. } written *gryfon*, or *gryphon*; *gryps*, γρὺψ; but it is generally written *griffon*.—Dr. Johnson. A fabled animal, said to be generated between the lion and eagle, and to have the head and paws of the lion, and the wings of the eagle.

That one did plete on the Pope's side
A *Griffon* of a grimme stature.
Chaucer. The Plowman's Tale.

Of all bearing among these winged creatures, the *griffin* is the most ancient. *Peacham on Blazoning.*

Aristeus, a poet of Proconesus, affirmed, that near the one-eyed nations *griffins* defended the mines of gold. *Browne.*

GRIFFON, GRYPHUS, was supposed by the ancients to have four legs, wings, and a beak; the upper part representing an eagle, and the lower a lion; and to watch over gold mines, hidden treasures, &c. This imaginary animal was consecrated to the sun; and the ancient painters represented the chariot of the sun as drawn by griffons. M. Spanheim observes the same of those of Jupiter and Nemesis. The griffon is commonly seen on ancient arms; and is borne in coat armour. Guillim blazons it rampant; alleging that any very fierce animal may be blazoned as well as the lion. Sylvester, Morgan, and others, use the terms segreant instead of rampant. The griffon is also an ornament of architecture in constant use among the Greeks, and was copied from them, with the other elegancies of architectural enrichments, by the Romans. See SPHINX.

The GRIFFON, in Scripture, is that species of the eagle called in Latin ossifraga, the osprey; and פרס, of the verb פרס, paras, to break. See FALCO.

GRIG, *n. s.* Bavarian *kricke*, a little duck. It seems originally to have signified any thing below the natural size; a small eel; also a merry creature: supposed from Greek; Lat. *græculus festivus.*

Hard is her heart as flint or stone,
She laughs to see me pale;
And merry as a *grig* is grown,
And brisk as bottle-ale. *Swift.*

GRILL, *v. n.* } Fr. *grille;* qu. Lat. *craticula.* To broil on a grate or gridiron: and hence figuratively, to harass, teaze, or ridicule a man.
GRILLADE', *n. s.*
GRIL'LY, *v. a.*

While we wrangle here and jar,
We are *grillied* all at Temple-bar. *Hudibras.*

GRIM, *adj.* } Sax. grimma; Goth. *grem;* Swedish *grym.* These words signify a countenance of terror; any thing hideous or frightful; ugly or ill-looking. Grimace is a distortion of countenance, either from affectation or insolence. Grime is dirt deeply insinuated. Grimness, a countenance of horror.
GRIMACE', *n. s.*
GRIME, *n. s.* & *v. a.*
GRIM'LY, *adv.*
GRIM'NESS, *n. s.*

Some saide he looked *grim*, and wolde fighte,
He hath a sparth of twenty pound of wighte.
Chaucer. The Knightes Tale.

He loketh as it were a *grim* leown,
And on his toos he rometh up and doun;
Him deigned not to set his feet to ground.
Chaucer. The Nonnes Preestes Tale.

The innocent prey in haste he does forsake,
Which quit from death, yet quakes in every limb,
With change of fear to see the lion look so *grim.*
Spenser.

The augurs
Say they know not; they cannot tell; look *grimly,*
And dare not speak their knowledge. *Shakspeare.*

Swart, like my shoe, but her face nothing so clean kept; for why? She sweats: a man may go over shoes in the *grime* of it. *Id.*

Grim visaged war hath smoothed his wrinkled front. *Id.*

Venus was like her mother; for her father is but *grim.* *Id.*

My face I'll *grime* with filth,
Blanket my loins, elf all my hair in knots. *Id.*

Their dear causes
Would to the bleeding and the *grim* alarm
Excite the mortified man. *Id. Macbeth.*

Thou hast a *grim* appearance, and thy face
Bears a command in't. *Id. Coriolanus.*

We've landed in ill time: the skies look *grimly,*
And threaten present blusters. *Shakspeare.*

Grim Saturn yet remains,
Bound in those gloomy caves with adamantine chains.
Drayton.

Straight stood up to him
Divine Ulysses; who, with lookes exceeding grave and *grim,*
This better check gave. *Chapman.*

He that dares to die,
May laugh at the *grim* face of law, and scorn
The cruel wrinkle of a tyrant brow.
Denham's Sophy.

What if the breath that kindled those *grim* fires,
Awaked, should blow them into seven-fold rage?
Milton.

Expert to turn the sway
Of battle, open when and where to close
The ridges of *grim* war. *Id. Paradise Lost.*

He had not spared to show his piques,
Against the' haranguer's politicks,
With smart remarks of leering faces,
And annotations of *grimaces!* *Hudibras.*

The favourable opinion and good word of men comes oftentimes at a very easy rate; and by a few demure looks and affected whims, set off with some odd devotional postures and *grimaces,* and such other little arts of dissimulation, cunning men will do wonders. *South's Sermons.*

So Pluto, seized of Proserpine, conveyed
To hell's tremendous gloom th' affrighted maid;
There *grimly* smiled, pleased with the beauteous prize,
Nor envied Jove his sunshine and his skies.
Addison.

Their swarthy hosts would darken all our plains,
Doubling the native horrour of the war,
And making death more *grim.* *Id. Cato*

The French nation is addicted to *grimace.*
Id. Spectator.

Collow is the word by which they denote black *grime* of burnt coals or wood. *Woodward on Fossils.*

Vice in a vizard, to avoid *grimace,*
Allows all freedom, but to see the face
Granville.

Thus to their hopeless eyes the night was shown
And *grimly* darkled o'er their faces pale,
And the dim desolate deep. *Byron.*

Achilles 'self was not more *grim* and gory
Than thousands of this new and polished nation,
Whose names want nothing but—pronunciation.
Id.

GRIMALDI (FRANCIS), an eminent painter, also called Bolognese, was born at Bologna in 1606, where he became a disciple of Annibal Caracci, and proved an honor to that illustrious master. From the school of Annibal he went to complete his studies at Rome, and improved himself daily, until his superior talents recommended him to Innocent X., who afforded him immediate opportunities of exerting his genius in his palace at Monte Cavallo, and in the Vatican. His merit soon engaged the attention of the public, and increased the number of his friends; among whom were prince Pamphilio, and the principal nobility of Rome. His reputation reached cardinal Mazarine at Paris, who sent for him, settled a large pension on him, and

employed him for three years in embellishing his palace and the Louvre, by the order of Louis XIII. The troubles of the state, and the clamors raised against the cardinal, whose party he warmly espoused, placed him in so much danger, that his friends advised him to retire among the Jesuits. He did so, and painted a decoration for the exposition of the sacrament during the holy days, according to the custom of Rome. This piece was much admired at Paris, and the king commanded him to paint such another for his chapel at the Louvre. Grimaldi after that returned to Rome, and found his patron Innocent X. dead; but his successors Alexander VII. and Clement IX. honored him equally with their friendship, and found him variety of employment. The following instance of his benevolence may serve to characterise Grimaldi. A Sicilian gentleman, who had retired from Messina with his daughter during the troubles of that country, was reduced to the misery of wanting bread. As Grimaldi lived near him, he was soon informed of it; and in the dusk of the evening, knocking at the Sicilian's door, without making himself known, tossed in money, and retired. The thing happening more than once, raised the Sicilian's curiosity to know his benefactor. Discovering him at last, by hiding himself behind the door, he fell down on his knees to thank the hand that had relieved him. Grimaldi remained confused, offered him his house, and continued his friend till his death. He died of a dropsy at Rome in 1680, and left a considerable fortune among six children. The genius of Grimaldi directed him chiefly to landscape. His coloring is strong; his touch light and delicate; his situations are uncommonly pleasing; and the leaves of his trees are admirable. Sometimes, indeed, his coloring appears rather too green; but those landscapes which he painted in the manner of the Caracci, may serve as models for all those who admire the style of that school; and he designed his figures in elegant taste. The pictures of this master are very rare, especially those of his best time; and, when they are to be purchased, they obtain large prices. Of his children, the youngest, named Alexander, proved a good painter, in the same style and taste with his father, though far inferior to him: some of the pictures of Alexander, however, are either artfully or injudiciously ascribed to Francis.

GRIMA'LKIN, *n. s.* Fr. *gris*, gray, and *malkin*, or little *Moll*, says Dr. Johnson; (gray, and Teut. *mal*, of Lat. *macula*, a spot.—Mr. Thomson.) Gray little woman; the name of an old cat.

> *Grimalkin*, to domestick vermin sworn
> An everlasting foe, with watchful eye
> Lies nightly brooding o'er a chinky gap,
> Protending her fell claws, to thoughtless mice
> Sure ruin. *Philips.*

GRIMM (Frederick Melchior), baron de, counsellor of state of the Russian empire, was born in 1723 at Ratisbon, of humble parents, who bestowed on him however a superior education. His taste for literature manifested itself in a tragedy, which he wrote in his youth. He went early in life to Paris as governor to the children of the count de Schomberg, and was appointed reader to the duke of Saxe Gotha. At this period he became acquainted with Rousseau, Diderot, d'Alembert, d'Holbach, &c. The count de Friese at last made him his secretary, with lucrative appointments. He published in 1753 a pamphlet entitled Le petit Prophet de Bechmischbrode, in defence of the Italian opera. On the death of his patron, de Friese, he was nominated principal secretary to the duke of Orleans; soon after which we find him employed, in conjunction with Diderot, in transmitting to the duke of Saxe Gotha an account of the writings, friendships, quarrels, &c., of the authors of the day. In 1776 he became envoy from the duke of Saxe Gotha to the French court, and was honored with the title of baron, and several orders. On the revolution breaking out, he retired to the court of Gotha. In 1795 the empress of Russia appointed him her plenipotentiary to the states of Lower Saxony; and he was confirmed in that post by her successor Paul, but ill-health obliged him to relinquish it, and return to Gotha, where he died December 19th, 1807. His principal work was published in different portions, under the following titles:—Correspondance Literaire, Philosophique, et Critique, addressée á un Souverain d'Allemagne, depuis 1770, jusqu'en 1782, par le Baron de Grimm et par Diderot, Paris, 1812, 5 vols. 8vo.; Correspondance Literaire, &c. en 1775, 1776, 1782,—1790. Troisiéme et dern. part. 1813, 5 vols. 8vo.; and Correspondance Literaire, &c. depuis 1753 jusqu'en 1760. Prem. part. 6 vols. 8vo. A selection from this voluminous collection was published in 2 vols. 8vo. in French and English.

GRIMM, or GRIMMA, a town of Upper Saxony, in the circle of Leipsic. It has a castle, three churches, and a college. Its chief trade is in linens, flannels, thread, beer, and wood. It is fifteen miles E.S.E. of Leipsic, and forty-two W.N.W. of Dresden.

GRIMOARD (count de), a French diplomatist and general, was descended from the family of pope Urban V. Louis XVI. entrusted him with a negociation in Holland; and on his return he formed the plans, offensive and defensive, of the campaign of 1792. The fall of the king interrupted his career, and he retired to private life, in which he wrote Essai Theorique et Pratique sur les Batailles, 1775, 4to.; Traité sur la constitution des Troupes legères, et sur leur emploi à la Guerre, 1782, 8vo.; Recherches sur la force de l'armée Française, &c., 1806, 8vo; Tableau Historique de la Guerre de la Revolution de France, 1808, in conjunction with general Servan, of which work only three volumes were published, when Buonaparte suppressed it. He died in 1815.

GRIMSBY, a sea-port town of Lincolnshire, 168 miles from London, and one of the most ancient corporations in England. It was a mayoralty in the reign of king John; and has returned two members to parliament ever since the reign of Edward I.: the right of election is in the resident free burgesses paying scot and lot. All the sons of freemen born in the town are entitled to their freedom, as well as

every person marrying a freeman's daughter or widow. It had anciently three convents and a castle. It is governed by a mayor, high steward, recorder, twelve aldermen, twelve common-council-men, two bailiffs, two coroners, and a town-clerk. It has several streets of good houses, and a handsome church. Its harbour was formerly choked up, but a fine dock has been constructed, and the harbour deepened and improved, and the road before it is a good station for ships that wait for a wind to get out to sea. Its chief trade is in coals and salt to the Baltic, which are brought by the Humber.

GRIN, *v. n.* & *n. s.*, GRIN'NER, *n. s.*, GRIN'NINGLY, *adv.* } Sax. ȝnennian; Dut. *grinnen, grinden*, undoubtedly of the same origin with *to grind*, as we now say, to *grind the teeth*; Fr. *grincer*.—Johnson. To fix the teeth as in wrath, or anguish, or mirth.

And *grinning* for dispitous rage;
Her nose ysnorted up for tene
Ful hidous was she for to sene.
Chaucer. Romaunt of the Rose.

What valour were it when a cur doth *grin*,
For one to trust his hand between his teeth,
When he might spurn him with his foot away.
Shakspeare.

I like not such *grinning* honour as Sir Walter hath: give me life, which if I can save, so; if not, honour comes unlooked for, and there's an end.
Id. Henry IV.

Death, death! oh, amiable, lovely death!
Come *grin* on me, and I will think thou smilest.
Shakspeare.

I asked which way was the wind,
For I thought in some talk we must enter,
'Why, Sir (she answered and *grinned*),
Have you just sent your wits for a venture?'
Sir John Suckling

It was no unpleasant entertainment to me to see the various methods with which they have attacked me; some with piteous moans and outcries, others *grinning*, and only showing their teeth. *Stillingfleet.*

He laughs at him: in's face too.
—O you mistake him; 'twas an humble *grin*,
The fawning joy of courtiers and of dogs.
Dryden.

A lion's hide he wears;
About his shoulders hangs the shaggy skin;
The teeth of gaping jaws severely *grin*. *Id.*

They neither could defend, nor can pursue;
But *grinned* their teeth, and cast a helpless view. *Id.*

The muscles were so drawn together on each side of his face, that he shewed twenty teeth at a *grin*.
Addison.

The frightful'st *grinner*.
Be the winner. *Id. Spectator.*

Madness we fancy, gave an ill-timed birth
To *grinning* laughter, and to frantick mirth.
Prior.

What lords are those saluting with a *grin*?
One is just out, and one is lately in. *Young.*

Fools *grin* on fools, and Stoicklike support,
Without one sigh, the pleasures of a court. *Id.*

Care to our coffin adds a nail no doubt,
And every *grin*, so merry, draws one out.
Dr. Walcot.

GRIN, *n. s.* Sax. ȝryn, ȝyrene. A snare; a trap.

The *grin* shall take him by the heel, and the robber shall prevail against him. *Job*, xviii. 9.

Like a bride that hasteneth to his *grym*,
Not knowing the perile. *Chaucer.*

GRIND, *v. a.* & *v. n.*, GRIND'ER, *n. s.*, GRIN'DLESTONE, *n. s.*, GRIND'STONE, *n. s.* } Preter. I ground; part. pass. ground. Saxon ȝrindan ȝeȝrunden. To reduce to powder by friction; to sharpen any instrument by rubbing on something hard; and figuratively to harass or oppress. Grinder is one that works in a mill; also the name of the double teeth. A grind-stone is that stone on which knives, &c., are sharpened.

To *grind* our corn and carry it hame agein;
I pray you spede us. *Chaucer. The Reves Tale.*
Whoso first cometh to the mill firste *grint*.
Id. Prologue to the Wif of Bathes Tale.

But in helle, hir sight shall be full of darknesse and of smoke; and her eyen full of teres, and hir hering full of waimenting and *grinting* of teeth.
Id. The Persones Tale.

He the raging lioness confounds,
The roaring lion with his javelin wounds
Scatters their whelps, their *grinders* breaks; so they
With the old hunters starve for want of prey.
Sandys.

His heart a solid rock, to fear unknown,
And harder than the *grinder's* nether stone. *Id.*

So up he let him rise; who with grim look,
And countenance stern, upstanding, 'gan to *grind*
His grated teeth for great disdain. *Spenser.*

He that will have a cake out of the wheat, must needs tarry the *grinding*.
Shakspeare. Troilus and Cressida.

Some merchants and tradesmen, under colour of furnishing the colony with necessaries, may not *grind* them so as shall always keep them in poverty.
Bacon's Advice to Villiers.

The teeth are in men of three kinds; sharp as the foreteeth; broad as the back-teeth, which we call the molar-teeth, or *grinders*; and pointed teeth or canine, which are between both. *Bacon.*

Harsh sounds, as of a saw, when it is sharpened, and *grinding* of one stone against another, make a shivering or horror in the body, and set the teeth on edge. *Id. Natural History.*

Such a light and metalled dance
Saw you never yet in France;
And by the lead-men for the nonce,
That turn round like *grindlestones*.
Ben Jonson.

Meeting with Time, slack thing, said I,
Thy sithe is dull, whet it, for shame:
No marvel, Sir, he did reply,
If it at length deserve some blame;
But where one man would have me *grind it*,
Twenty to one too sharp do find it. *Herbert.*

Fettered they send thee
Into the common prison, there to *grind*
Among the slaves and asses.
Milton's Agonistes.

One, who at the sight of supper, opened wide
His jaws before, and whetted *grinders* tryed.
Dryden.

Both he brought;
He mouthed them, and betwixt his *grinders* caught.
Id.

Not knowing 'twas my labour, I complain
Of sudden shootings, and of *grinding* pain,
My throes come thicker, and my cries increas'd.
Id.

Against a stump his tusk the monster *grinds*,
And in the sharpened edge new vigour finds. *Id.*

The jaw-teeth or *grinders*, in Latin molares, are made flat and broad a-top, and withal somewhat un-

even and rugged, that, by their knobs and little cavities, they may the better retain, *grind*, and commix the aliments. *Ray on the Creation.*

Smiths that make hinges brighten them, yet seldom file them; but *grind* them on a *grindstone* till bright. *Moxon.*

Now exhort
Thy hinds to exercise the pointed steel
On the hard rock, and give a whealy form
To the expected *grinder*. *Philips.*

Shrinking sinews start,
And smeary foam works o'er my *grinding* jaws. *Rowe.*

Another way the Spaniards have taken to *grind* the Neapolitans, and yet to take off the odium from themselves. *Addison.*

That the stomach in animals *grinds* the substances which it receives, is evident, from the dissection of animals which have swallowed metals, which have been found polished on the side next the stomach. *Arbuthnot on Aliments.*

Nature is at a great deal of labour to transmute vegetables into animal substances; therefore herb-eating animals, which do not ruminate, have strong *grinders*, and chew much. *Arbuthnot.*

What relation or affinity is there between a minute body and cogitation, any more than the greatest? Is a small drop of rain any wiser than the ocean? Or do we *grind* inanimate corn into living and rational meal? *Bentley's Sermons.*

GRINDING is also used for rubbing or wearing off the irregular parts of the surface of a body, and reducing it to the destined figure, whether that be flat, concave, or the like. The grinding and polishing of glass is a considerable art; for which see GLASS-MAKING; and for grinding of optical glasses, see OPTICS.

GRINDING, in cutlery, the operation of sharpening edge-tools. This operation, as usually practised, is attended with no small inconvenience, from the production of heat by friction. The heat produced is so great, that hard tools are often softened and spoiled by the steel becoming ignited during the grinding. To prevent this effect, the grind-stone is partly immersed in a trough of water; but in this case the rotation of the stone must be moderate, and the work, of course, slow, else the water will be thrown off by the centrifugal force. When the water is applied from above by a cock, the quantity is too small to counteract the heat, and preserve the necessary low temperature. It has even been found, that the edge or point of a hard tool ground under water will be softened, if it be not held so as to meet the stream, sparks being often produced even under water. To remedy this inconvenience, Mr. Nicholson made the following experiments:—He procured a Newcastle grind-stone of a fine grit, ten inches in diameter, and a mahogany block, to be used with emery on it; both mounted on an axis, to be applied between the centres of a strong lathe. Both were of the same diameter, and turned truly cylindrical. The face of the mahogany block was grooved obliquely in opposite directions, to afford a lodgment for the emery: the face of the stone was smooth, and a trough with water was placed below it. The wooden cylinder was faced with oil and emery. The tool to be ground was a file, from which it was intended to grind off all the teeth. The velocity of the rotation produced by the lathe was so great as to turn the apparatus about five revolutions in a second. Yet the stone operated but slowly, and the trough was quickly exhausted; so that the workman was obliged to slacken the velocity on account of the heat. The emery cylinder cut rather faster. But, although the friction was made to operate successively and by frequent changes on the whole surface of the file, it soon became too hot to be held; and, when a cloth was used to defend the workman's hand, the work not only went on awkwardly, but the heat increased to such a degree, that the oil was decomposed, and emitted an empyreumatic smell. The stone was then allowed to dry, and the file tried upon its face. It almost instantly became blue, and very soon after red-hot. Both the cylinders were then covered with tallow, by holding the end of a candle to each while turning round, and emery was sprinkled on the wooden one. The file was then applied to the grind-stone while in rapid motion. At first the friction was hardly observable, but very soon afterwards, the zone of tallow pressed by the file became melted, and the stone cut very rapidly. Yet the file was for a long time hardly heated at all; and, when at last it began to feel warm, its temperature was instantly lowered by removing it to another zone of the cylinder. The same effects were produced on the wooden cylinder. This is easily explained upon the modern theory of heat. When oil was used on the wooden cylinder, the heat produced by the friction was employed in raising the temperature of the file and the oil; but when tallow was used, instead of the oil, the greatest part of the heat was exhausted in melting this substance. From the increased capacity of the tallow when fused, the heat was absorbed and became latent, instead of raising the temperature: and when the melted tallow began to grow hot, together with the file, the temperature was easily reduced by employing the heat on another zone of tallow. Mr. Nicholson used these two cylinders in a considerable quantity of work with great satisfaction. This discovery bids fair to be of great utility

GRINSTED, EAST, a market town of Sussex, twenty-nine miles from London, seated on a hill near the borders of Surrey. It has a handsome church, which was rebuilt after having been burnt down in 1683. On the 12th of November, 1785, the beautiful tower, having fallen to decay, fell down, and partly lighting on the church, very considerably damaged it. An hospital in the reign of king James I., for thirty-one poor people of this town, was built and endowed with £330 a year. It is a borough by prescription, governed by a warden and two gentlemen-assistants; has sent burgesses to parliament ever since the first of Edward II., who are elected by about thirty-five burgage-holders: and had a charter for a monthly market from Henry VII. The returning officer here is the bailiff, who is chosen by a jury of burgage-holders. Its market is on Thursday. At the east end of the town is a large handsome building in the form of a square, called Sackville College, founded by Sackville, duke of Dorset, about the year 1616, for twenty-four

aged persons of both sexes, where each has a comfortable room, and a yearly allowance of £8.

GRIP, *n. s.* A small ditch.—*Ainsworth.*

GRIPE, *v. a.*, *v. n.*, & *n. s.* } Saxon ȝnipan; Gothic *greipan*; Dut. *grijpen*; Scot. *gripp*. To grasp; to hold hard; to catch; to press, or squeeze; a seizure of the hand or paw. Gripes, a name given to the colic or pain in the bowels: hence, figuratively, oppression or affliction. A griper is an extortioner; a usurer. Griple is a griping or covetous miser.

GRI'PER, *n. s.*
GRI'PINGLY, *adv.*
GRI'PLE, *n. s.*

If I maie *gripe* a riche man,
I shall so pulle him, if I can,
That he shall in a few stoundes
Lese all his markes and his poundes.
Chaucer. Romaunt of the Rose.

A wonderous way it for this lady wrought,
From lion's claws to pluck the *griped* prey. *Spenser.*

Therefore still on high
He over him did hold his cruel claws,
Threatening with greedy *gripe* to do him dy. *Id.*

They put a barren sceptre in my *gripe*,
Thence to be wrenched with an unlineal hand.
Shakspeare.

Should I
Slaver with lips, as common as the stairs
That mount the Capitol; join *gripes* with hands
Made hardy with hourly falsehood as with labour.
Id.

He gave me his hand,
And, with a feeble *gripe*, says, dear, my lord,
Command my service. *Id. Henry V.*

I take my cause
Out of the *gripes* of cruel men, and give it
To a most noble judge, the king my master.
Shakspeare.

You took occasion to be quickly woo'd,
To *gripe* the general sway into your hands. *Id.*

He that speaks doth *gripe* the hearer's wrist,
Whilst he that hears makes fearful action
With wrinkled brows. *Id. King John.*

Clysters help, lest the medicine stop in the guts, and work *gripingly*. *Bacon's Natural History.*

Others pretend zeal, and yet are professed usurpers, *gripers*, monsters of men, and harpies. *Burton.*

It is mean revenue, by being scattered, in the worst of times growing upon him, when others that had great ones, by *griping*, made them less, and grew stark beggars. *Fell.*

Adam, at the news
Heart-struck with chilling *gripe* of sorrow stood,
That all his senses bound! *Milton's Paradise Lost.*

Canst thou bear cold and hunger? Can these limbs,
Framed for the tender offices of love,
Endure the bitter *gripes* of smarting poverty? *Otway.*

Thus full of counsel to the den she went,
Griped all the way, and longing for a vent.
Dryden.

I fell; and with my weight the helm constrained
Was drawn along, which yet my *gripe* retained.
Id. Æneid.

Fired with this thought, at once he strained the breast;
'Tis true, the hardened breast resists the *gripe*,
And the cold lips return a kiss unripe. *Dryden.*

And first the dame came rushing through the wood;
And next the famished hounds that sought their food,
And *griped* her flanks, and oft essayed their jaws in blood. *Id. Fables.*

He seized the shining bough with *griping* hold,
And rent away with ease the lingering gold.
Dryden.

Many people would, with reason, prefer the *griping* of an hungry belly to those dishes which are a feast to others. *Locke.*

Manna, by the bulk, figure, texture, and motion of its parts, has a power to produce the sensations of sickness, and sometimes of acute pains or *gripings* in us. *Id.*

In saucy state the *griping* broker sits,
And laughs at honest and at trudging wits.
Gay.

In the jaundice the choler is wanting; and the icterical have a great sourness and *gripes*, with windiness. *Floyer.*

Unlucky Welted! thy unfeeling master,
The more thou ticklest, *gripes* his hand the faster.
Pope.

GRISA'MBER, *n. s.* Used by Milton for ambergrise.

Beast of chase, or fowl of game,
In pastry built, or from the spit, or boiled,
Grisamber steamed. *Milton's Paradise Regained.*

GRISE, *n. s.* See GREECE, as it should be written. A step, or scale of steps.

Let me speak like ourself; and lay a sentence,
Which as a *grise* or step, may help these lovers
Into your favour. *Shakspeare. Othello.*

GRISGRIS, a superstition greatly in vogue among the negroes in the interior parts of Africa. The grisgris, according to Le Maire, are certain Arabic characters, mixed with magical figures drawn by the Marabuts or priests upon paper. Labat affirms, that they are nothing else than scraps of the Alcoran in Arabic; but the words are probably of the Mandingo language, though the characters are an attempt to imitate the Arabic. The poorest negro never goes to war without his grisgris, as a charm against wounds; and, if it proves ineffectual, the priest transfers the blame on the immorality of his conduct. These priests invent grisgris against all kinds of dangers, and in favor of all desires and appetites; by virtue of which the possessors may obtain or avoid whatever they like or dislike. No priests in the world are more honored and revered by the people than these impostors are by the negroes; nor are any people in the world more impoverished by their priests than these negroes are, a grisgris being frequently sold at three slaves and four or five oxen. The grisgris intended for the head is made in the form of a cross, reaching from the forehead to the neck behind, and from ear to ear; nor are the arms and shoulders neglected. Sometimes they are planted in their bonnets in the form of horns; at other times they are made like serpents, lizards, or some other animals, out of a kind of pasteboard, &c.

GRI'SKIN, *n. s.* Irish *grisgin*, roast meat. The vertebræ of a hog broiled.

GRISLEA, in botany, a genus of the monogynia order, and octandria class of plants: natural order seventeenth, calycanthemæ: CAL. quadrifid; and there are four petals, one from each incisure of it. The filaments are very long, ascending or running upwards: CAPS. globose, superior, unilocular, and polyspermous. Species two; one an East Indian shrub with a fine red flower; the other, G. secunda, a South American tree, with leaves like the bay-tree.

GRI'SLY, *adj* Sax. ȝnirlu. Dreadful; horrible; hideous; frightful; terrible.

Emong all this—to romblen gan the heven;
The thonder rored with a *grisly* steven.
Chaucer. Legende of Good Women.

All peinted was the wall, in length and brede,
Like to the estres of that *grisly* place
That hight the gret temple of Mars in Trace.
Id. The Knightes Tale.

Full black and *griesly* did his face appeare,
Besmeared with smoke that nigh his eye sight blent;
With rugged beard, and hoarie shagged heare
The which he never wont to combe or comely sheare.
Spenser.

His *grisly* locks, long growen and unbound,
Disordered hung about his shoulders round. *Id.*

Where I was wont to seek the honey bee,
The *grisly* toadstool grown there might I see. *Id.*

My *grisly* countenance made others fly;
None durst come near, for fear of sudden death.
Shakspeare. Henry VI.

Back stepped those two fair angels half amazed,
So sudden to behold the *grisly* king;
Yet thus, unmoved with fear, accost him soon.
Milton.

For that damned magician, let him be girt
With all the *grisly* legions that troop
Under the sooty flag of Acheron. *Id.*

The beauteous form of fight
Is changed, and war appears a *grisly* sight.
Dryden.

In vision thou shalt see his *grisly* face,
The king of terrors raging in thy race.
Id. Innocence.

Thus the *grisly* spectre spoke again. *Dryden.*

Close by each other laid, they pressed the ground.
Their manly bosoms pierced with many a *grisly* wound.
Id.

So rushes on his foe the *grisly* bear.
Addison.

Lo! in the vale of years beneath
A *grisly* troop are seen,
The painful family of Death
More hideous than their queen. *Gray.*

GRISONS, The, the largest canton in Switzerland, is bounded by Upper Austria, Venetian Lombardy, and the small cantons of Ticino, Uri, Glarus, and St. Gall. It comprehends sixty principal and lateral valleys, and has, in all, a superficial extent of 2500 square miles. Its population, classed according to their language, has been thus estimated:—

Those who speak German . .	26,000
——————— Italian . .	10,000
——————— Romanish or the ancient Rhætian language .	37,000
Total	73,000

It is still divided into three leagues, viz. the Grison or Gray League, the League of the house of God, and the ten Jurisdictions; which united formed one republic. The two first lie toward the south, and the third towards the north. The inhabitants are said to have been named Grisons, from the gray coats they wore in former times. This country, lying among the Alps, is very mountainous, yielding good pasture for the cattle, sheep, and goats, with some rye and barley: in the valleys there is plenty of grain, pulse, fruits, and wine. It abounds also with hogs and wild fowl; but there is a scarcity of fish and salt, and their horses are mostly purchased of foreigners. The principal rivers are the Rhine, the Inn, and the Adda. It has also several lakes, most of which lie on the tops of the hills. The culture of potatoes was introduced here so lately as 1772, and has been carried to a considerable extent. Some parts are covered with valuable timber. The valley of the Engadin exports large quantities to Tyrol by the Inn; and the northern districts have opened a trade in that article with Holland, through the medium of the Rhine. This country is also rich in minerals: there are no manufactures however except a few cotton works at Coire. Their exports are cattle, wood, and minerals. From Suabia and the Tyrol they import corn; salt from the Tyrol and Bavaria; and from different parts of Switzerland, linen, and English and French cloths.

This country was anciently a part of Rhætia. After the extinction of the Roman empire in the west, it was some time subject to its own dukes, or those of Swabia. Then the bishop of Coire, and other petty princes, dependent on the emperors of Germany, became masters of great part of it: at last, by the extinction of some, purchase, voluntary grants, and force, it got rid of all its lords, and was erected into three distinct republics. This country, as well as the whole of Switzerland, suffered much during the late wars, having been repeatedly and successively overrun by the French and Austrians. In 1797 these republics were acknowledged by France, and in the following year the Grisons with its dependencies was formed into one of the Swiss cantons. The leagues are divided into communes.

GRISSAUNT (William), an eminent English physician, astronomer, and mathematician of the fourteenth century. Being, from the ignorance and superstition of the times, suspected of magic, he retired to France, gave up mathematics, and applied solely to medicine. His son was elected pope, and took the name of Urban V.

GRIST, *n. s.* Sax. ȝnirt. A corruption of grindst. Corn; supply; provision: 'Grist to the mill'—is profit or gain.

Get *grist* to the mill to have plenty in store,
Lest miller lack water. *Tusser's Husbandry.*

The computation of degrees, in all matrimonial causes, is wont to be made according to the rules of that law, because it brings *grist* to the mill. *Ayliffe.*

A mighty trade this lusty miller drove;
Much *grist* from Cambridge to his lot did fall,
And all the corn they used at scholar's hall.
Miller of Tromp.

Matter, as wise logicians say,
Cannot without a form subsist;
And form, say I, as well as they,
Must fail, if matter brings no *grist.* *Swift.*

GRI'STLE, *n. s.* } Saxon ȝnirtle; Teuton.
GRI'STLY, *adj.* } *croestel.* A cartilage; a part of the body next in hardness to the bone.

No living creatures, that have shells very hard, as oysters, crabs, lobsters, and especially the tortoise, have bones within them, but only little *gristles.*
Bacon's Natural History.

At last they spit out pieces of their lungs; it may be small *gristly* bits, that are eaten off from the lung-pipes. *Harvey.*

She has made the back-bone of several vertebræ, as being more fit to bend, more tough, and less in danger of breaking, than if they were all one intire bone without these *gristly* junctures. *More.*

Fins are made of *gristly* spokes, or rays connected by membranes; so that they may be contracted or extended like women's fans. *Ray.*

Lest the asperity or hardness of cartilages should hurt the œsophagus or gullet, which is tender and of a skinny substance, or hinder the swallowing of our meat, therefore the annulary *gristles* of the windpipe are not made round, or intire circles; but, where the gullet touches the windpipe, there, to fill up the circle, is only a soft membrane, which may easily give way to the dilatation of the gullet. *Id.*

They have a louder and stronger note than other birds of the same bigness, which have only a *gristly* windpipe.

Each pipe distinguished by its *gristly* rings,
To cherish life aerial pasture brings. *Blackmore.*

GRIT, *n. s.* GRITS, *n. s.* GRIT'TINESS, *n. s.* GRIT'TY, *adj.* } Saxon grytta, greot. The coarse part of meal; oats husked, or coarsely ground; sand; rough hard particles

In fuller's-earth he could find no sand by the microscope, nor any *grittiness*. *Mortimer's Husbandry.*

The sturdy pear-tree here
Will rise luxuriant, and with toughest root
Pierce the obstructing *grit* and restive marl.
Philips.

Silesian bole, crackling a little betwixt the teeth, yet without the least particle of *grit*, feels as smooth as soap. *Grew.*

I could not discern the unevenness of the surface of the powder, nor the little shadows let fall from the *gritty* particles thereof. *Newton.*

GRIT, ARGILLACEOUS, a genus of argillaceous earths. Its texture is more or less porous, equable, and rough to the touch. It does not give fire with steel, nor effervesce with acids. When fresh broken, and breathed upon, it exhales an earthy smell. Kirwan mentions two kinds; one from Hollington near Utoxeter, of a yellowish or whitish gray, and about the specific gravity of 2288. Another, from Knepersly in Staffordshire, is of the specific gravity of 2568; and so unfusible as to be used for fire stones. According to Fabroni, the grit-stone is of greater or less hardness, mostly of a gray, and sometimes of a yellowish color, composed of a siliceous and micaceous sand, but rarely of a sparry kind; with greater or smaller particles closely compacted by an argillaceous cement It gives some sparks with steel, is indissoluble for the most part in acids, and vitrifiable in a strong fire. It is used for millstones and whetstones; and sometimes for filtering stones and for building.

GRI'ZELIN, *adj.* More properly gridelin See GRIDELIN.

The Burgundy, which is a *grizelin* or pale red, of all others, is surest to ripen in our climate. *Temple.*

GRIZ'ZLE, *n. s.* GRIZ'ZLED, *adj.* GRIZ'ZLY, *adj.* } Fr. *gris, grisaille.* A mixture of white and black; a gray color.

To the boy Cæsar, send this *grizzled* head.
Shakspeare.

His beard was *grizzled*?
It was as I have seen it in his life. *Id. Hamlet.*
O thou dissembling cub! what wilt thou be,
When time hath sowed a *grizzle* on thy face?
Shakspeare.

Living creatures generally do change their hair with age, turned to be grey and white; as is seen in men, though some earlier, some later; in horses that are dappled and turn white; and in old squirrels, that turn *grizzly*. *Bacon.*

His hair just *grizzled*,
As in a green old age.
Dryden and Lee's Œdipus.

Those *grizzled* locks, which nature did provide
In plenteous growth their asses' ears to hide.
Dryden.

GROAN, *v. n.* & *n. s.* GROAN'FUL, *adj* GROAN'ING, *n. s.* } Sax. grnanan; Belg. *gronen, kreun.* To breathe with a hoarse noise as in pain or agony: any hoarse deep melancholy sound. A groaning is an expression used by the common people to signify an accouchement.

Men *groan* from out of the city, and the soul of the wounded crieth out. *Job* xxiv. 12.

Repenting and *groaning* for anguish of spirit
Wisdom v. 3.

Thei spared not, but smote incessauntlie;
'To satisfie hir malice thei were busie;
Thei spit in his face, thei smote here and there.
He *groned* full sore and swete many a tere.
Chaucer. Lament of Mary Magdeleine.

Adown he kest it with so puissant wrest,
That back again it did aloft rebound,
And gave against his mother earth a *groanful* sound
Spenser.

Such sheets of fire, such bursts of horrid thunder,
Such *groans* of roaring wind and rain, I never
Remember to have heard. *Shakspeare. King Lear.*

Many an heir
Of these fair edifices, for my wars,
Have I heard *groan* and drop.
Id. Coriolanus.

Alas, poor country,
Where sighs and *groans*, and shrieks that rend the air,
Are made, not marked! *Id. Macbeth.*

So shall the world go on,
To good malignant, to bad men benign,
Under her own weight *groaning*.
Milton's Paradise Lost.

Thus when without noise unknown
I have lived out all my span,
I shall die without a *groan*,
An old honest countryman. *Marvell.*

I led to slaughter, and to slaughter leave;
And even from hence their dying *groans* receive.
Dryden.

Nothing can so peculiarly gratify the noble dispositions of humanity, as for one man to see another so much himself as to sigh his griefs and *groan* his pains.
South

The woods recede arouud the naked seat,
The Sylvans *groan*—no matter—for the fleet. *Pope.*

On the blazing pile his parent lay,
Or a loved brother *groaned* his life away.
Pope's Odyssey.

Hence aching bosoms wear a visage gay,
And stifled *groans* frequent the ball and play. *Young.*

To each his sufferings; all are men
Condemned alike to *groan*;
The tender, for another's pain;
The unfeeling, for his own. *Gray*

GROAT, *n. s.* Belg. *groot* (i. e. great); Ital. *grosso*. A piece valued at four-pence; a proverbial name for a small sum. Groats, oats that have the hulls taken off.—*Ainsworth*

And yeve that Covent four-and-twenty *grotes*;
And yeve that frere a peny, and let him go.
Chaucer. The Sompnoures Tale.

I shall quiten every *grot*.
Id. Prologue to the Freres Tale.

My mother was wont
To call them woollen vassals, things created
To buy and sell with *groats*.
Shakspeare. Coriolanus.

I dare lay a *groat*,
A tertian ague is at least your lot.
Dryden's Fables.

Imagine a person of quality to marry a woman much his inferior, and without a *groat* to her fortune.
Swift.

To build, to plant, whatever you intend,
To rear the column, or the arch to bend,
To swell the terrace, or to sink the *groat*,
In all let Nature never be forgot. *Pope.*

GRO'CER, *n. s.* } This should be written
GRO'CERY, *n. s.* } grosser, from gross, a large quantity; a grocer originally being one who dealt by wholesale; or from *grossus* a fig, which their present state seems to favor.—Johnson. Minsheu says 'from Fr. *grossier*, ex *gros*, magnum.' Grocers' ware, such as tea, sugar, raisins, spice.

His troops being now in a country where they were not expected, met with many cart loads of wine, *grocery*, and tobacco. *Clarendon.*

A *grocer* is a man who buys and sells tea, sugar, and plums, and spices, for gain.
Watts's Logick.

But still the offspring of your brain shall prove
The *grocer's* care, and brave the rage of Jove.
Garth.

GROCYN (William), a learned English divine, of the fifteenth century, born in Bristol, in 1442. He held a disputation at Oxford before king Richard III., who rewarded him liberally. In 1485 he was made a prebendary of Lincoln. In 1488 he travelled into Italy, and studied Greek under Politian and Demetrius Chalcondylas. Upon his return he taught it, and introduced the pronunciation of those masters into England. He was the friend and patron of Erasmus. He died at Maidstone, in 1522, of the palsy, aged eighty. His works are mentioned by Bayle. His Latin Epistle to Aldus Manutius is prefixed to Linacre's translation of Proclus de Sphærâ. Venice, 1494.

GRODNO, a town, province, and government of Russian Poland, on the right bank of the Niemen: the town stands partly on a hill surrounded by several eminences. It consists of a mixture of wooden huts, and of houses once the residence of noblemen, but now in ruins. The population is about 5000, of whom the Jews form about 1500. In 1673 the Polish diet resolved that a third part of its meetings should be held at Grodno; but this rule was never strictly observed. It was the retreat of Stanislaus, during the troubles of 1795, and the place where he made a final abdication of his crown. Grodno has an academy, and in the neighbourhood are manufactures of silk, linen, and fire-arms, established in 1776. It is 140 miles north-east of Warsaw, and 140 south-east of Konigsberg.

The government of Grodno forming part of Lithuania, and adjacent to the governments of Wilna, Minsk, and Volgnsk, is fully 11,000 square miles in extent: population about 620,000. The surface is level, and much of it covered with wood: the rest is partly a light sandy soil, and partly marshy, but in general fertile. Agriculture is in a backward state; yet some corn is exported, and forms, together with the export of cattle, the only source of subsistence to the inhabitants: the little trade that is carried on is in the hands of Jews. This country is divided into eight circles, and lies between 51° 36′ and 54° 19′ of N. lat. It was formerly called the government of Slonim.

GRO'GERAM, *n. s.* }
GRO'GRAM, *n. s.* } Fr. *gros, grain;* low
GRO'GRAN, *n. s.* } Latin *grossogranus.*—Ainsworth. Stuff woven with large woof and a rough pile.

Certes they're neatly clothed: I of this mind am,
Your only wearing is your *grogeram*. *Donne.*

Natolia affords great store of chamelots and *grograms*. *Sandys.*

Some men will say this habit of John's was neither of camel's skin nor any coarse texture of its hair, but rather some finer weave of camelot, *grogram*, or the like. *Browne.*

The natural sweetness and innocence of her behaviour shot me through and through, and did more execution upon me in *grogram* than the greatest beauty in town had ever done in brocade. *Addison.*

The' imperial flower, his neck with pearl attires;
The lily high her silver *grogram* rears,
The pansy her wrought velvet garment bears;
The red-rose, scarlet, and the provence, damask wears.
Fletcher's Purple Island.

Plain goody would no longer down;
'Twas madam in her *grogram* gown. *Swift.*

GROIN, *n. s.* Of uncertain derivation.—Johnson. Minsheu says à Belg. *grom*. The part next above the thigh.

Antipleus, a sonne of Priam, threw
His lance at Ajax through the preasse, which went by him, and flew
On Leucus, wise Ulysses' friend: His *groine* it smote.
Chapman.

The fatal dart arrives,
And through the border of his buckler drives;
Passed through and pierced his *groin*; the deadly wound
Cast from his chariot, rolled him on the ground.
Dryden.

GROIN, among builders, is the angular curve made by the intersection of two semi-cylinders or arches: and is either regular or irregular. A regular groin is when the intersecting arches, whether semi-circular or semi-elliptical, are of the same diameters and height. An irregular groin is where one of the arches is semi-circular, and the other semi-elliptical.

GRONINGEN, a province and town at the north-east extremity of the Netherlands, bounded by the German Ocean on the north, by Hanover on the east, and by the Dutch provinces of Drenthe and Friesland on the south and west. Its superficial extent is about 770 square miles, and its population 146,000. The surface lies so

low, that the whole province is intersected by a multitude of canals and wet ditches, for the purpose of carrying off the water, and protected by dykes against inundations. In several parts there are swamps, and the soil is in general marshy. The wealth of the province is in its pastures, but corn is raised; and wood abounds in the south. In the towns there are manufactures of linen and woollen. The other sources of support are the fisheries along the coast, and some foreign trade. The province is divided into the three nearly equal districts of Groningen, Appingadam, and Winschoten; neither of the latter towns has 3000 inhabitants; and Delfzyl, a small sea-port, nas not above 1000.

The town of Groningen is walled, and situated on the rivers Hunse and Fivel. It is of a circular form, and the houses in general are well built, and the streets regular. It has three public squares, and some handsome public buildings; in particular the prince's palace, the provincial assembly-house, the arsenal, and the custom-house. The Gothic church of St. Martin has a tower of great height. The university, founded in 1614, is endowed with the revenues of several monasteries, and consists of five faculties, with nineteen professors. There are here likewise academies for drawing, navigation, and agriculture; an establishment for the deaf and dumb, &c. The trade is much promoted by the Hunse being navigable for large vessels up to the town. The chief trade is in agricultural produce, the linen and woollen manufactures, and quills. 100 miles north-east of Amsterdam. Population 26,500.

GRONOVIA, in botany, a genus of the monogynia order, and pentandria class of plants: natural order thirty-fourth, cucurbitaceæ: petals five; stamina five, inserted into a campanulated CAL.; the berry is dry, monospermous, and inferior. Species one: a Vera Cruz plant.

GRONOVIUS (John Frederic), a learned critic, born at Hamburgh in 1613. Having travelled through Germany, Italy, and France, he was made professor of polite learning at Deventer, and afterwards at Leyden, where he died in 1671. He published, 1. Diatribe in Statii, &c. 2. De Sestertiis. 3. Correct editions of Seneca, Statius, Livy, Pliny's Natural History, Tacitus, Aulus Gellius, Phædrus, &c., with notes; and other works.

GRONOVIUS (James), son of the preceding, was educated at Leyden. He then went over to England, where he visited the universities, consulted the curious MSS., and formed an acquaintance with several learned men. He was chosen by the grand duke to be professor at Pisa, with a considerable salary, but returned into Holland, after he had resided two years in Tuscany, and consulted the MSS. in the Medicean library. In 1679 he was invited by the curators of the university of Leyden to a professorship; and his inaugural dissertation was so highly approved of, that the curators added 400 florins to his stipend, and continued it to his death in 1716. His principal works are, The treasure of Greek antiquities, in 13 vols. folio; and a great number of dissertations, and editions of ancient authors. He was compared to Schioppus for the virulence of his style; and the severity with which he treated other great men who differed from him exposed him to just censure.

GROOM, *n. s.* Belg. *grom.* A boy; a waiter; a servant; a young man; a man newly married.

Rennen and crie, os thou werd wode,
On Æolus, the god of windes,
To blow out of allè kindes
So loude, that he should ydrenche
Lorde and ladie, and *grome* and wenche,
Of all the Trojanes nacion.
Chaucer. The House of Fame.

Then called she a *groom*, that forth him led
Into a goodly lodge. *Spenser.*

Think then, my soul! that death is but a *groom*,
Which brings a taper to the outward room. *Donne.*

From Egypt's kings ambassadours they come;
Them many a squire attends, and many a *groom*.
Fairfax.

I presume for to intreat this *groom*,
And silly maid, from danger to redeem. *Id.*

In the time of Edward VI. lived Sternhold, whom King Henry his father had made *groom* of his chamber, for turning of certain of David's psalms into verse. *Peacham.*

Would'st thou be touched
By the presuming hands of saucy *grooms*?
Dryden.

Amid the fold he rages, nor the sheep
Their shepherds, nor the *grooms* their bulls can keep.
Id.

By this the brides are waked, their *grooms* are dressed;
All Rhodes is summoned to the nuptial feast. *Id.*

There many a *groom*, the busy cook attends,
In under offices. *Fletcher's Purple Island.*

——— be *grooms*, and win the plate
Where once your nobler fathers won a crown.
Cowper.

GROOM is also applied to several superior officers belonging to the king's household, as groom of the chamber, groom of the stole. See STOLE and WARDROBE.

GROOVE, *n. s.* & *v. a.* Goth. *graf*; Sax. ɡnapan; to dig or engrave. A deep cavern or hollow in mines; a channel cut with a tool: to cut any thing hollow.

He might, to avoid idleness, work in a *groove* or mine-pit thereabouts, which at that time was little esteemed. *Boyle.*

The screw-plate is a kind of steel well tempered, with several holes in it, each less than other; and in those holes are threads *grooved* inwards, which *groove* fit the respective taps that belong to them.
Moxon's Mechanical Exercises.

Of the box every joint was well *grooved*. *Sandys.*

GROOVE, among miners, is the shaft or pit sunk into the earth sometimes in the vein, and sometimes not.

GROOVE, among joiners, the channel made by their plough in the edge of a moulding, style, or rail, to put their pannels in, in wainscotting.

GROPE, *v. n.* & *v. a.* } Sax. ɡnopan. To feel
GRO'PER, *n. s.* } or search after any thing where one cannot see: one who searches in the dark.

We *grope* for the wall like the blind, and we grope as if we had no eyes. *Isaiah* lix. 10.

Thise curates ben so negligent and slow
To *gropen* tendrely a conscience.
Chaucer. The Sompnoures Tale.

She *gropeth* alway forther with her hond
And fond the bed. *Id. The Reves Tale.*

They meet with darkness in the clearest light;
And *grope* at noon, as if involved with night. *Sandys.*

In youth before I waxed old,
The blind boy, Venus' baby,
For want of cunning made me bold
In bitter hyve to *grope* for honny.
Spenser. Poems.

My sea-grown scarf about me, in the dark
Groped I, to find out them. *Shakspeare. Hamlet.*

How vigilant to *grope* men's thoughts, and to pick out somewhat whereof they might complain.
Hayward.

They have left our endeavours to *grope* them out by twilight, and by darkness almost to discover that, whose existence is evinced by light. *Browne.*

A boy was *groping* for eels, and laid his hand upon a snake. *L'Estrange.*

This, no doubt, is better for men than that they should in the dark *grope* after knowledge; as St. Paul tells us all nations did after God. *Locke.*

He heard us in our course,
And with his outstretched arms around him *groped*.
Addison.

O truth divine! enlightened by thy ray,
I *grope* and guess no more, but see my way.
Arbuthnot.

But Strephon, cautious, never meant
The bottom of the pan to *grope*. *Swift.*

GROSE (Francis), Esq. F. A. S., an eminent English antiquary, was born in 1731, and was left an independent fortune; but had not a disposition to preserve it. He wrote, 1. The Antiquities of England and Wales, in 8 vols. 4to. and 8vo., which he began in 1773, and completed in 1787; containing 589 views, besides forty plans, &c. 2. The Antiquities of Scotland, 2 vols. 4to. and 8vo., containing 100 views with a map. 3. The Antiquities of Ireland, 2 vols. 4to. and 8vo. 4. A Treatise on Ancient Armour and Weapons, 4to., 1785, with a supplement in 1789. 5. A Classical Dictionary of the Vulgar Tongue, 8vo., 1785. 6. Military Antiquities, 2 vols. 4to., 1786—88. 7. The History of Dover Castle, 4to., 1786. 8. A Provincial Glossary, with a Collection of Local Proverbs and Popular Superstitions, 8vo., 1788. 9. A Guide to Health, Beauty, Honor, and Riches, 8vo. 10. Rules for Drawing Caricatures, 8vo., 1788. 11. The Olio: a collection of Essays, 8vo. In summer, 1789, he set out on a tour in Scotland, and began to communicate his observations in folio numbers, with four plates each, in 1790. Before he had completed this work, he went to Dublin, with the intention of executing a similar work, with views and descriptions of the antiquities of Ireland, executed in the same elegant manner with those of Great Britain; but being seized with an apoplectic fit, at the house of Mr. Hone in Dublin, he died on the 12th of May, 1791, aged about sixty. He had great skill in drawing, which peculiarly qualified him for executing the works in which he engaged: and, being of an agreeable, humorous, and communicative disposition, he was much esteemed in the extensive circle of his friends. He visited almost every part of the three kingdoms. He married a lady at Canterbury, by whom he had several children; of whom captain Daniel Grose, after serving several campaigns in America, was appointed deputy governor of the settlement of Botany Bay, in 1790.

GROSS, *adj.* & *n. s.* } Swed. and Teut. *gross;*
GROSS'LY, *adv.* } Fr. *gros;* Ital. *grosso;*
GROSS'NESS, *n. s.* } Lat. *crassus;* barb. Lat. *grossus.* Thick; bulky; enormous; unrefined; inelegant; stupid; impure: gross, the substantive, signifies the main body; the whole as opposed to parts: the number of twelve dozen; the chief part; the main mass.

Wise men, that be over-fat and fleshy, go to sojourn abroad at the temperate diet of some sober man; and so, by little and little, eat away the *grossness* that is in them. *Ascham.*

They can say that in doctrine, in discipline, in prayers, and in sacraments, the church of Rome hath very foul and *gross* corruptions. *Hooker.*

So far hath the natural understanding, even of sundry whole nations, been darkened, that they have not discerned, no, not *gross* iniquity to be sin. *Id.*

He ripely considered how *gross* a thing it were for men of his quality, wise and grave men, to live with such a multitude, and to be tenants at will under them. *Id.*

Such kind of ceremonies as have been so *grossly* and shamefully abused in the church of Rome, where they remain, are scandalous. *Id.*

Certain general inducements are used to make saleable your cause in *gross*. *Id.*

He hath ribbons of all the colours in the rainbow; they come to him by the *gross*. *Shakspeare.*

I cannot instantly raise up the *gross*
Of full three thousand ducats. *Id.*

Treason and murder ever kept together,
As two yoke devils sworn to others' purpose;
Working so *grossly* in a natural cause,
That admiration did not whoop at them. *Id.*

And thine eyes
See it so *grossly* shown in thy behaviour,
That in their kind they speak it. *Id.*

What! are we cuckolds ere we have deserved it?
—Speak not so *grossly*. *Id. Merchant of Venice.*

To all sense 'tis *gross*
You love my son: invention is ashamed,
Against the proclamation of thy passion,
To say thou dost not. *Shakspeare.*

Examples *gross* as earth exhort me. *Id.*

The crows and choughs, that wing the midway air,
Shew scarce so *gross* as beetles. *Id. King Lear.*

The purpose is perspicuous even as substance,
Whose *grossness* little characters sum up.
Shakspeare.

And I will purge that mortal *grossness* so,
That thou shalt like an airy spirit go. *Id.*

I was three or four times in the thought they were not fairies; and yet the guiltiness of my mind drove the *grossness* of the foppery into a received belief that they were fairies. *Id.*

The cause of the epilepsy from the stomach is the *grossness* of the vapours which rise and enter into the cells of the brain. *Bacon.*

Comets, out of question, have likewise power and effect over the *gross* and mass of things. *Id.*

The articulate sounds are more confused, though the *gross* of the sound be greater.
Id. Natural History.

It is manifest, that when the eye standeth in the finer medium, and the object is in the *grosser*, things shew greater; but contrariwise, when the eye is placed in the *grosser* medium, and the object in the finer. *Id.*

This was my error, this my *gross* mistake,
Myself a demi votary to make. *Cowley.*

Belial came last, than whom a spirit more lewd
Fell not from heaven, or more *gross* to love
Vice for itself. *Milton's Paradise Lost.*

And in clear dream and solemn vision,
Tell her of things that no *gross* ear can bear. *Milton.*

Of elements,
The *grosser* feeds the purer; earth the sea,
Earth and the sea feed air. *Id. Paradise Lost.*

Then all this earthly *grossness* quit;
Attired with stars we shall for ever sit,
Triumphing over death. *Milton.*

What I have said has been forced from me, by seeing a noble sort of poetry so happily restored by one man and so *grossly* copied by almost all the rest. *Dryden.*

The Belgians hoped, that with disordered haste,
The deep-cut keels upon the sands might run;
Or, if with caution leisurely we past,
Their numerous *gross* might charge us one by one. *Id.*

You see the united design of many persons to make up one figure: after they have separated themselves in many petty divisions, they rejoin one by one in a *gross.* *Id.*

Remember, son,
You are a general: other wars require you;
For see the Saxon *gross* begins to move. *Id.*

It is made up only of that simple idea of an unit repeated; and repetitions of this kind, joined together, make those distinct simple modes of a dozen, a *gross*, and a million. *Locke.*

Is not religion so perfectly good in itself, above all in its Author, that, without the *grossest* sensuality, we cannot but admire it? *Sprat.*

Several casuists are of opinion, that, in a battle, you should discharge upon the *gross* of the enemy, without levelling your piece at any particular person. *Addison's Freeholder.*

The *gross* of the people can have no other prospect in changes and revolutions than of publick blessings. *Addison.*

If I speak of light and rays as endued with colours, I would be understood to speak not philosophically and properly, but *grossly*, and according to such conceptions as vulgar people would be apt to frame. *Newton's Opticks.*

This being the first colour which vapours begin to reflect, it ought to be the colour of the finest and most transparent skies, in which vapours are not arrived to that *grossness* requisite to reflect other colours. *Id.*

There are two *gross* volumes concerning the power of popes. *Baker.*

Or suck the mists in *grosser* air below,
Or dip their pinions in the painted bow. *Pope.*

For envied wit, like Sol eclipsed, was known
The' opposing body's *grossness*, not its own. *Id.*

Wealth in the *gross* is death, but life diffused,
As poison heals, in just proportion used. *Pope.*

But women now feel no such fire,
And only know the *gross* desire. *Swift.*

While it is so difficult to learn the springs and motives of some facts, it is no wonder they should be so *grossly* misrepresented to the publick by curious inquisitive heads. *Id.*

Some men give more light and knowlege by the bare stating of the question with perspicuity and justness, than others by talking of it in *gross* confusion for whole hours together. *Watts.*

The sun's oppressive ray the roseat bloom
Of beauty blasting, gives the gloomy hue,
And feature *gross.* *Thomson's Summer.*

There is a vain and imprudent use of their estates, which, though it does not destroy like *gross* sins, yet disorders the heart, and supports it in sensuality and dulness. *Law.*

What a *grossness* is there in the mind of that man, who thinks to reach a lady's heart by wounding her ears! *Clarissa.*

But she dares never boast the present hour,
So *gross* the cheat, it is beyond her power. *Young.*

GROSSTESTE (Claude), a French protestant divine, who came to London on the revocation of the edict of Nantes. He was minister of the Savoy. He wrote a treatise on the Inspiration of the Sacred Books, and several sermons. He died in 1713.

GROSSULLARIA. See RIBES.

GROT, *n. s.* } Fr. *grotte*; Ital. *grotta*; Gr.
GROT'TO, *n. s.* } κρυπτος. A cave; a cavern for coolness and pleasure.

Their careless chiefs to the cool *grottos* run,
The bowers of kings, to shade them from the sun. *Dryden.*

In the remotest wood and lonely *grot*,
Certain to meet that worst of evils, thought. *Prior.*

This was found at the entry of the *grotto* in the Peak. *Woodward.*

Awful see the Egerian *grot.* *Pope.*

No crowded in a *grotto's* gloom,
All hope extinct they wait their doom. *Beattie.*

And the stained glass which lighted this fair *grot*
Tinted each ray. *Byron.*

GROTE'SQUE, *adj.* Fr. *grotesque*; Ital. *grottesco*; Span. *grutesque.* Distorted of figure; unnatural; wildly formed.

The champaign head
Of a steep wilderness, whose hairy sides
With thicket overgrown, *grotesque* and wild,
Access denyed. *Milton's Paradise Lost.*

There is yet a lower sort of poetry and painting, which is out of nature; for a farce is that in poetry which *grotesque* is in a picture: the persons and actions of a farce are all unnatural, and the manners false, that is, inconsisting with the characters of mankind: *grotesque* painting is the just resemblance of this. *Dryden.*

An hideous figure of their foes they drew,
Nor lines, nor looks, nor shades, nor colours true,
And this *grotesque* design exposed to publick view. *Id.*

Palladian walls, Venetian doors,
Grotesque roofs, and stucco floors. *Pope.*

GROTESQUE, in sculpture and painting, something whimsical, extravagant, and monstrous; consisting either of things that are merely imaginary, or so distorted as to raise surprise and ridicule. The word owes its derivation from figures of this kind, being anciently much used to adorn the grottos wherein the tombs of eminent persons were enclosed.

GROTIUS (Hugo), or more properly Hugh de Groot, was born at Delft in 1583. He made so rapid a progress in his studies, that at fifteen he had attained great knowledge in philosophy, divinity, and civil law; and a yet greater proficiency in polite literature, as appears by the commentary he had made at that age on Martianus Capella. In 1598 he accompanied the Dutch ambassador into France, and was honored with several marks of esteem by Henry IV. He took his degree of L.L.D. in that kingdom; and, at his return to his native country, pleaded at the bar before he was seventeen years of age. He was not twenty-four when he was appointed attorney-general. In 1613 he settled at Rotterdam, and was nominated syndic of that city; but did not accept of the office, till a promise was made

him that he should not be removed from it. This prudent precaution he took, foreseeing, that the Arminian controversy, which had already given rise to many factions in the state, would occasion revolutions in the chief cities. The same year he was sent to England, on account of the divisions that reigned between the traders of the two nations, on the right of fishing in the northern seas; but he could obtain no satisfaction. He was afterwards sent to England, to persuade the king and the principal divines to favor the Arminians; and he had several conferences with king James I. on that subject. On his return to Holland his attachment to Barnevelt involved him in great trouble; for he was seized, and sentenced, in 1619, to perpetual imprisonment, and to forfeit all his goods and chattels. But after having been treated with great rigor for above a year and a half in his confinement, he was delivered by the advice and artifice of his wife, who having observed that his keepers, who had often fatigued themselves with searching and examining a great trunk of foul linen, which used to be washed at Gorkum, now let it pass without opening it, advised him to bore holes in it to prevent his being stifled, and then to get into it. He complied with this advice, and was carried to a friend's house in Gorkum; where dressing himself like a mason, and taking a rule and trowel, he passed through the market-place, and stepping into a boat went to Valvet in Brabant. Here he made himself known to some Arminians, and hired a carriage to Antwerp. At first there was a design of prosecuting his wife, who staid in the prison; and some judges were of opinion that she ought to be kept there in her husband's stead; however she was released by a plurality of voices, and universally applauded for her behaviour. He now retired into France, where he met with a gracious reception from that court, and Louis XIII. settled a pension upon him. Having resided there eleven years, he returned to Holland, on his receiving an invitation from Frederic Henry prince of Orange; but, his enemies renewing their persecution, he went to Hamburgh; where, in 1634, queen Christina of Sweden made him her counsellor and sent him ambassador into France. After having discharged the duties of this office above eleven years, he returned to give an account to queen Christina of his embassy, and in his journey visited Amsterdam. He was introduced to the queen at Stockholm; and there begged that she would grant him a dismissal, that he might return to Holland. This he obtained with difficulty. As he was returning, the ship in which he embarked was cast away on the coast of Pomerania; and, being sick, he continued his journey by land; but he was forced to stop at Rostock, where he died on the 28th of August, 1645. His body was carried to Delft, to be interred in the sepulchre of his ancestors. Notwithstanding the embassies in which he was employed, he composed a great number of works; the principal of which are, 1. De Jure Belli et Pacis, which is esteemed a master-piece. 2. A Treatise on the Truth of the Christian Religion. 3. Commentaries on the Holy Scriptures. 4. The History and Annals of Holland; and a great number of letters, all written in Latin

Grotius (William), brother to Hugh, was an eminent lawyer, and wrote several books on jurisprudence. He died in 1662.

GROTON, a township of Connecticut in New London county, bounded on the west by the Thames, and on the south by Fisher's Island. It contains two parishes, and had 3946 citizens in 1795. It comprehends Fort Griswold, which defends the harbour of New London.

Groton, a town in the above township, opposite to New London city. It was burned by general Arnold, on the 6th of September, 1781, and suffered loss to the amount of £23,217.

Grotto, or Grotta, in natural history, a large deep cavern or den in a mountain or rock. Elden Hole, Okey Hole, Peake's Hole, and Pool's Hole, are famous among the natural caverns or grottos of England. See these articles. In grottos are frequently found crystals of the rock, stalactites, and other natural conglaciations, and those of an amazing beauty. See Antiparos. At Foligno in Italy is another grotto, consisting of pillars and orders of architecture of marble, with their ornaments, &c., scarcely inferior to those of art.

Grotto is also used for a little artificial edifice made in a garden, in imitation of a natural grotto. The outsides of these grottos are usually adorned with rustic architecture, and their inside with shell-work, fossils, &c., finished likewise with jets d'eau or fountains, &c. A cement for artificial grottos may be made thus:—Take two parts of white rosin, melt it clear, and add to it four parts of bees' wax; when melted together, add two or three parts of the powder of the stone you design to cement, or so much as will give the cement the color of the stone; to this add one part of the flower of sulphur: incorporate all together over a gentle fire, and afterwards knead them with your hands in warm water. With this cement the stones, shells, &c., after being well dried before the fire, may be cemented. Artificial red coral branches, for the embellishment of grottos, may be made in the following manner:—Take clear rosin, dissolve it in a brass-pan; to every ounce of which add two drams of the finest vermilion: when you have stirred them well together, and have chosen your twigs and branches, peeled and dried, take a pencil and paint the branches all over, whilst the composition is warm; afterwards shape them in imitation of natural coral. This done, hold the branches over a gentle coal fire, till all is smooth and even as if polished. In the same manner white coral may be prepared with white-lead, and black coral with lamp-black. A grotto may be built with little expense, of glass, cinders, pebbles, pieces of large flint, shells, moss, stones, counterfeit coral, pieces of chalk, &c., all bound or cemented together with the above-described cement.

GROVE, *n. s.* From grave. Sax. ȝnaꝼan. A walk covered by trees meeting above.

> And in the *grove*, at time and place ysette,
> This Arcite and this Palamon ben mette.
> *Chaucer. The Knightes Tale.*

> Colin! to heare thy rymes and roundelayes,
> Which thou wert wont on wasteful hilles to sing,

I more delight then larke in sommer dayes,
Whose eccho made the neighbour *groves* to ring.
Spenser. The Shepheard's Calendar.

I looked toward Birnam, and anon methought
The wood began to move:
Within this three mile may you see it coming;
I say, a moving *grove*. *Shakspeare. Macbeth.*

Fortunate fields, and *groves*, and flowery vales;
Thrice happy isles! *Milton.*

She left the flowery field, and waving *grove*.
Blackmore.

Banished from courts and love,
Abandoned truth seeks shelter in the *grove*.
Granville.

Grove nods at *grove*, each alley has a brother,
And half the platform just reflects the other.
Pope.

Can fierce passions vex his breast,
While every gale is peace, and every *grove*
Is melody? *Thomson's Spring.*

Sweet were your shades, O ye primeval *groves!*
Whose boughs to man his food and shelter lent;
Pure in his pleasures, happy in his loves,
His eye still smiling, and his heart content.
Beattie.

GROVE, in gardening, a small wood of trees. Groves are not only great ornaments to gardens, but also afford great relief against the violent heats of the sun, affording shade to walk under in the hottest parts of the day, when the other parts of the garden are useless; so that every garden is defective which has not shade. Groves are of two sorts, viz. either open or close. Open groves are such as have large shady trees, which stand at such distances as that their branches approach so near each other as to prevent the rays of the sun from penetrating through them. Close groves have frequently large trees standing in them; but the ground under these is filled with shrubs of underwood: so that the walks which are in them are private, and screened from winds; by which means they are rendered agreeable for walking at those times when the air is either too hot or too cold in other parts of the garden. These are often contrived so as to bound the open groves, and frequently to hide the walls or other enclosures of the garden: and when they are properly laid out, with dry walks winding through them, and on the sides of these sweet-smelling shrubs and flowers irregularly planted, they have a charming effect. Groves have been in all ages held in great veneration. The proseuchæ, and high places of the Jews, whither they resorted for the purposes of devotion, were probably situated in groves. See Joshua xxiv. 26. The proseuchæ in Alexandria, mentioned by Philo, had groves about them, because he complains that the Alexandrians, in a tumult against the Jews, cut down the trees of their proseuchæ. The ancient Romans had a sort of groves near several of their temples, which were consecrated to some god, and called luci, by antiphrasis, a non lucendo, as being shady and dark. The veneration which the ancient Druids had for groves is well known.

GROVE (Henry), a learned and ingenious presbyterian divine, born at Taunton in Somersetshire in 1683. Having obtained a classical education, he went through a course of academical learning under the Rev. Mr. Warren of Taunton. He then removed to London, and studied under the Rev. Mr. Rowe, to whom he was nearly related. Here he contracted a friendship with Dr. Watts, which continued till his death; and, after two years, returned into the country, and began to preach with great reputation. Soon after beginning to preach, he married; and, on the death of Mr. Warren, succeeded him in the academy at Taunton; where he preached for eighteen years to two small congregations in the neighbourhood. In 1708 he published a piece entitled the Regulation of Diversions, drawn up for the use of his pupils. He next wrote several papers printed in the Spectator, viz. Numbers 588, 601, 626, 635. The last was republished, by the direction of Dr. Gibson, bishop of London, in the Evidences of the Christian Religion, by Addison. In 1725, Mr. James, his partner in the academy, dying, he succeeded him in his pastoral charge at Fulwood, near Taunton; and in this situation Mr. Grove continued till his death, which happened in 1738. Besides the above pieces, he wrote—An Essay towards a Demonstration of the Soul's Immortality; An Essay on the Terms of Christian Communion; The Evidence of our Saviour's Resurrection Considered; Some Thoughts concerning the Proof of a Future State from Reason; A Discourse concerning the Nature and Design of the Lord's Supper; Wisdom the first spring of Action in the Deity; A Discourse on Saving Faith; Miscellanies in prose and verse; and many Sermons, &c. After his decease his posthumous works were published by subscription, in 4 vols. 8vo., with the names of nearly 700 subscribers.

GROV'EL, *v. n.* } Goth. *grufla*; Isl. *grufde*,
GROV'ELING, *adj.* } flat on the face. 'It may perhaps come by gradual corruption from ground fell,' says Johnson; but this seems a curious guess. To lie prone; to creep low on the ground; to be mean or without dignity.

The steel-head passage wrought,
And through his shoulder pierced; wherewith to ground
He *groveling* fell, all gored in his gushing wound.
Spenser.

What see'st thou there? king Henry's diadem,
Inchased with all the honours of the world!
If so, gaze on, and *grovel* on thy face,
Until thy head be circled with the same.
Shakspeare.

Oke mast and beech, and cornell fruit they eate,
Groveling like swine on earth, in fowlest sort.
Chapman.

Now they lie
Groveling and prostrate on yon lake of fire. *Milton.*

Upon thy belly *groveling* thou shalt go. *Id.*

Let us then conclude that all painters ought to require this part of excellence: not to do it, is to want courage, and not dare to shew themselves: 'tis to creep and *grovel* on the ground. *Dryden.*

I must disclaim whate'er he can express;
His *groveling* sense will shew my passion less. *Id.*

Several thoughts may be natural which are low and *groveling*. *Addison's Spectator.*

Wilt thou debase the heart which God refined?
No; let thy heaven-taught soul to heaven aspire
To fancy, freedom, harmony resigned;
Ambitious *groveling* crew for ever left behind.
Beattie.

GROUND, *n. s* Sax. ȝrunꝺ; Belg. *grond*: Dan. *grondt*; Teut. *grund*. The earth considered as superficially extended, and therefore related to tillage, travel, habitation, or almost any action. The main mass of terrene matter is never called the ground. We never distinguish the terraqueous globe into ground and water, but into earth, or land, and water; again, we never say under earth, but under ground.

Israel shall go on dry *ground* through the sea.
Exod. xiv. 16.

She touched him with her harp, and raised him from the *ground*;
The shaken strings melodiously resound. *Cowley.*

Man to till the *ground*
None was, and from the earth a dewy mist
Went up, and watered all the *ground*. *Milton.*

From the other hill
To their fixed station, all in bright array,
The cherubim descended, on the *ground*
Gliding meteorous. *Id.*

A black bituminous gurge
Boils up from under *ground*. *Id.*

Hyde stamps, and straight upon the *ground* the swarms
Of current myrmidons appear in arms. *Marvell.*

And yet so nimbly he would bound,
As if he scorned to touch the *ground*. *Hudibras.*

The earth as distinguished from air and water.

And, as my blessed hap
And gode aventure was, right sone I founde
A tabernacle reised from the *grounde*
Where Venus sat and Cupide by her side.
Chaucer. The Court of Love.

I have made man and beast upon the *ground*.
Jeremiah.

There was a dew upon all the *ground*.
Judges vi. 40.

They summed their wings, and soaring the' air sublime,
With clang despised the *ground*. *Milton.*

Too late young Turnus the delusion found;
Far on the sea, still making from the *ground*.
Dryden.

Milton's strong pinion, now not heaven can bound,
Now serpent-like in prose he sweeps the *ground*.
Pope.

Land; country.

The water breaks its bounds,
And overflows the level *grounds*. *Hudibras.*

When genial Spring a living warmth bestows,
And o'er the year her verdant mantle throws,
No swelling inundation hides the *grounds*,
But crystal currents glide within their bounds.
Gay.

Region; territory.

On heavenly *ground* they stood, and from the shore
They viewed the vast immeasurable abyss. *Milton.*

With these came they, who from the bordering flood
Of old Euphrates to the brook that parts
Egypt from Syrian *ground*, had general names
Of Baalim and Ashtaroth. *Id. Paradise Lost.*

Estate; possession.

Uneasy still within these narrow bounds,
Thy next design is on thy neighbour's *grounds*:
His crop invites, to full perfection grown;
Thy own seems thin, because it is thy own.
Dryden.

Land occupied.

The sea o'erflowed my *ground*,
And my best Flanders mare was drowned.
Milton.

The floor or level of the place.

Wherefore should I smite thee to the *ground*?
2 *Sam.* ii. 22.

Dagon was fallen on his face to the *ground*.
1 *Sam.* v. 4.

A multitude sit on the *ground*.
Matt. xv. 35.

Some part of the month of June, the water of this lake descends under *ground*, through many great holes at the bottom. *Browne.*

Dregs; lees; fæces; that which settles at the bottom of liquors.

Set by them cyder, verjuice, sour drink, or *grounds*.
Mortimer.

Some insist upon having had particular success in stopping gangrenes, from the use of the *grounds* of strong beer, mixed up with bread or oatmeal.
Sharp's Surgery.

The first stratum of paint upon which the figures are afterwards painted.

We see the limner to begin with a rude draught, and the painter to lay his *grounds* with darksome colours. *Hakewill.*

When solid bodies, sensible to the feeling and dark, are placed on light and transparent *grounds*, as, for example, the heavens, the clouds and waters, and every other thing which is in motion, and void of different objects; they should be more rough, and more distinguishable, than that with which they are encompassed. *Dryden's Dufresnoy.*

The fundamental substance; that by which the additional or accidental parts are supported.

O'er his head
A well-wrought heaven of silk and gold was spread
Azure the *ground*, the sun in gold shone bright.
Cowley.

Indeed it was but just that the finest lines in nature should be drawn upon the most durable *ground*.
Pope.

Then wrought into the soul, let virtues shine,
The *ground* eternal as the work divine. *Young.*

The plain song; the tune on which descants are raised.

Get a prayer-book in your hand,
And stand between two churchmen, good my lord;
For on that *ground* I'll build a holy descant.
Shakspeare.

First hint; first traces of an invention; that which gives occasion to the rest.

Though jealousy of state the' invention found,
Yet love refined upon the former *ground*;
That way the tyrant had reserved to fly,
Pursuing hate, now served to bring two lovers nigh.
Dryden.

The first principles of knowledge.

The concords will easily be known, if the fore-*grounds* be thoroughly beaten in.
Preface to Accidence.

Here statesmen, or of them they which can read,
May of their occupation find the *grounds*. *Donne.*

The *grounds* are already laid whereby that is unquestionably resolved; for having granted that God gives sufficient grace, yet when he co-operates most effectually, he doth it not irresistibly. *Hammond.*

After evening repasts, 'till bed-time, their thoughts will be best taken up in the easy *grounds* of religion, and the story of scripture. *Milton.*

The fundamental cause; the true reason; original principle.

And al the *grounde* of this his woful chaunce.
Chaucer. Complaint of the Blacke Knight.

The use and benefit of good laws all that live under them may enjoy with delight and comfort, albeit the

grounds and first original causes from whence they have sprung be unknown. *Hooker.*

It is not easy to imagine how any such tradition could arise so early, and spread so universally, if there were not a real *ground* for it. *Wilkins.*

Nor did either of them ever think fit to make any particular relation of the *grounds* of their proceedings, or the causes of their misadventures. *Clarendon.*

Thou could'st not have discerned,
Fraud in the serpent, speaking as he spake,
No *ground* of enmity between us known.
Milton.

In the solution of the Sabbatizer's objection, my method shall be, to examine, in the first place, the main *grounds* and principles upon which he buildeth. *White.*

He desired the steward to tell him particularly the *ground* and event of this accident. *Sidney.*

Sound judgment is the *ground* of writing well. *Roscommon.*

If it be natural, ought we not to conclude that there is some *ground* and reason for these fears, and that nature hath not planted them in us to no purpose. *Tillotson.*

Thus it appears, that suits at law are not sinful in themselves, but may lawfully be used, if there is no unlawfulness in the *ground* and way of management. *Kettlewell.*

Love once given from her, and placed in you,
Would leave no *ground* I ever would be true.
Dryden.

The miraculous increase of the professors of Christianity was without any visible *grounds* and cause, and contrary to all human probability and appearance. *Atterbury.*

Upon that prince's death, although the *grounds* of our quarrel with France had received no manner of addition, yet this lord thought fit to alter his sentiments. *Swift.*

The field or place of action.

Here was thy end decreed, when these men rose;
And even with theirs this act thy death did bring,
Or hastened at the least upon this *ground*. *Daniel.*

The space occupied by an army as they fight, advance, or retire.

At length the left wing of the Arcadians began to lose *ground*. *Sidney.*

Heartless they fought, and quitted soon their *ground*,
While ours with easy victory were crowned.
Dryden.

He has lost *ground* at the latter end of the day, by pursuing his point too far, like the prince of Conde at the battle of Seneffe. *Dryden's Fables. Preface.*

The intervening space between the flyer and pursuer.

Evening mist,
Risen from a river, o'er the marish glides,
And gathers *ground* fast at the labourer's heels,
Homeward returning. *Milton's Paradise Lost.*

Superiors think it a detraction from their merit to see another get *ground* upon them, and overtake them in the pursuits of glory. *Addison's Spectator*

Even whilst we speak our conqueror comes on,
And gathers *ground* upon us every moment.
Addison.

The state in which one is with respect to opponents or competitors.

Had'st thou swayed as kings should do,
Giving no *ground* unto the house of York,
They never then had sprung.
Shakspeare. Henry VI.

If they get *ground* and 'vantage of the king,
Then join you with them like a rib of steel,
To make them stronger. *Id. Henry IV.*

Whatever *ground* we may have gotten upon our enemies we have gotten none upon our vices, the worst enemies of the two; but are even subdued and led captive by the one, while we triumph so gloriously over the others. *Id.*

State of progress or recession.

I have known so many great examples of this cure, and heard of its being so familiar in Austria, that I wonder it has gained no more *ground* in other places. *Temple.*

The squirrel is perpetually turning the wheel in her cage: she runs apace, and wearies herself with her continual motion, and gets no *ground*. *Dryden.*

The foil to set a thing off.

Like bright metal on a sullen *ground*,
My reformation glittering o'er my fault,
Shall shew more goodly, and attract more eyes,
Than that which hath no foil to set it off.
Shakspeare.

To fix on the ground.

To found, as upon cause, reason, or principle.

Wisdom *groundeth* her laws upon an infallible rule of comparison. *Hooker.*

The church of England, walking in the good and old way of the orthodoxical primitive fathers, *groundeth* the religious observation of the Lord's day, and of other Christian holidays, upon the natural equity, and not upon the letter of the fourth commandment. *White.*

It may serve us to *ground* conjectures more approaching to the truth than we have hitherto met with. *Boyle.*

If your own actions on your will you *ground*,
Mine shall hereafter know no other bound.
Dryden.

Some eminent spirit having signalized his valour, becomes to have influence on the people, to grow their leader in warlike expeditions; and this is *grounded* upon the principles of nature and common reason, which, where prudence and courage are required, rather incite us to fly to a single person than a multitude. *Swift.*

To settle in first principles or rudiments of knowledge.

Being rooted and *grounded* in love.
Eph. iii. 17.

GROUND, the preterite and part. pass. of grind.

Now dull and rugged ere 'tis *ground*
And polished, looks a diamond. *Hudibras.*

Ground is much used in composition for that which is next the ground, or near the ground.

GROUND-ASH, *n. s.* A sapling of ash taken from the ground; not a branch cut from a tree.

A lance of tough *ground-ash* the Trojan threw,
Rough in the rind, and knotted as it grew.
Dryden. Æneid.

Some cut the young ashes off about an inch above the ground, which causes them to make very large straight shoots, which they call *ground-ash*.
Mortimer's Husbandry.

GROUND-BAIT, *n. s.* From ground and bait. A bait made of barley or malt boiled; which, being thrown into the place where you design to angle, sinks to the bottom, and draws the fish to it.

Take the depth of the place where you mean after to cast your *ground-bait*, and to fish.
Walton's Angler.

GROUND-FLOOR, *n. s.* Ground and floor. The lower story of a house.

GROUND-IVY, *n. s.* Lat. *hedera terrestris.* Alehoof, or tunhoof.

Alehoof or *ground-ivy* is, in my opinion, of the most excellent use and virtue of any plants among us. *Temple.*

GROUND-OAK, *n. s.* Ground and oak.

If the planting of oaks were more in use for underwoods, it would spoil the cooper's trade for the making of hoops, either of hasel or ash; because one hoop made of the young shoots of a *ground-oak*, would outlast six of the best ash. *Mortimer.*

GROUND-PINE, *n. s.* Lat. *chamæpitys.* A plant.

The whole plant has a very singular smell, resembling that of resin; whence its name *ground-pine.* It grows on dry and barren hills, and in some places on the ditch banks by road sides. *Hill.*

GROUND-PLATE, *n. s.* In architecture. The outermost pieces of timber lying on or near the ground, and framed into one another with mortises and tennons. In these also are mortises made to receive the tennons of the joists, the summer and girders; and sometimes the trimmers for the stair-case and chimney-way, and the binding joist.—*Harris.*

In the orthographical schemes there should be a true delineation, if it be a timber building, of the several sizes of the *ground-plates*, breast summers, and beams. *Mortimer.*

GROUND-PLOT, *n. s.* The ground on which any building is placed.

Wretched Gynecia, where canst thou find any small *ground-plot* for hope to dwell upon? *Sidney.*

A *ground-plot* square five hives of bees contains;
Emblems of industry and virtuous gains. *Harte.*

GROUND-RENT, *n. s.* Rent paid for the privilege of building on another man's ground.

A foot in front, and thirty-three five-sevenths deep, would bring in a *ground-rent* of five pounds. *Arbuthnot on Coins.*

The site was neither granted him, nor given;
'Twas nature's, and the *ground-rent* due to heaven. *Harte.*

GROUND-ROOM, *n. s.* A room on the level with the ground.

I beseeched him hereafter to meditate in a *ground-room*; for that otherwise it would be impossible for an artist of any other kind to live near him. *Tatler.*

GROUND'EDLY, *adv.*
GROUND'LESS, *adj.*
GROUND'LESSLY, *adv.*
GROUND'LESSNESS, *n. s.*
GROUND'LING, *n. s.*
GROUND'LY, *adv.*
GROUND'WORK, *n. s.*

These words (compounds from ground) signify firmness either in principles or substance, and are opposed to whatever is fictitious, causeless, or superficial. A groundling is a fish which keeps at the bottom of the water, and hence a name applied to the vulgar. A groundwork is the first part of an undertaking; the foundation; the outline; the first principle of a science; or the original reason of a thing.

A man, *groundly* learned already, may take much profit himself, in using by epitome to draw other men's works, for his own memory sake, into shorter room. *Ascham.*

The *groundwork* thereof is nevertheless true and certain, however they through ignorance disguise the same, or through vanity. *Spenser. State of Ireland.*

It offends me to the soul, to hear a robusteous perriwig-pated fellow tear a passion to tatters, to very rags, to split the ears of the *groundlings.* *Shakspeare. Hamlet.*

The main skill and *groundwork* will be to temper them such lectures and explanations, upon every opportunity, as may lead and draw them in willing obedience. *Milton.*

He hath given the first hint of speaking *groundedly*, and to the purpose upon this subject. *Glanville.*

Divers persons have produced the like by spirit of vitriol, or juice of lemons; but have *groundlessly* ascribed the effect to some peculiar quality of those two liquors. *Boyle on Colours.*

He durst not cite the words either of my book or sermons, lest the readers should have discovered the notorious falsehood and *groundlessness* of his calumny. *Tillotson.*

A way there is in heaven's expanded plain,
Which, when the skies are clear, is seen below,
And mortals by the name of milky know;
The *groundwork* is of stars. *Dryden's Fables.*

The moral is the first business of the poet, as being the *groundwork* of his instruction. *Dryden.*

But when vain doubt and *groundless* fear
Do that dear foolish bosom tear. *Prior.*

We have great reason to look upon the high pretensions which the Roman church makes to miracles as *groundless*, and to reject her vain and fabulous accounts of them. *Atterbury.*

The party who distinguish themselves by their zeal for the present establishment, should be careful to discover such a reverence for religion, as may shew how *groundless* that reproach is which is cast upon them, of being averse to our national worship. *Frecholder.*

GRO'UNDSEL, *n. s.* Sax. ȝrund and ꝼile, the basis, perhaps from Lat. *sella.* The timber or raised pavement next the ground.

The window-frame hath every one of its lights rabbetted on its outside about half an inch into the frame; and all these rabbets, but that on the *groundsel*, are grooved square; but the rabbet on the *groundsel* is levelled downwards, that rain or snow may the freelier fall off. *Moxon.*

GRO'UNDSEL, *n. s.* Lat. *senecio.* A plant.

GROUP, *n. s.* & *v. a.* Fr. *groupe;* Ital. *groppo*, a bunch or knot. See GRAPE. A crowd; a cluster; a hurdle; a number thronged together.

In a picture, besides the principal figures which compose it, and are placed in the midst of it, there are less *groups* or knots of figures disposed at proper distances, which are parts of the piece, and seem to carry on the same design in a more inferior manner. *Dryden's Dufresnoy.*

The difficulty lies in drawing and disposing, or, as the painters term it, in *grouping* such a multitude of different objects, preserving still the justice and conformity of stile and colouring. *Prior.*

I cannot doubt but the poet had here in view the picture of Zetus, in the famous *group* of figures which represents the two brothers binding Dirce to the horns of a mad bull. *Addison.*

You should try your graving tools
On this odious *group* of fools. *Swift.*

Such were the sounds that thrilled the rocks along,
And unto ears as rugged seemed a song!
In scattered *groupes* upon the golden sand
They game—carouse—converse—or whet the brand.
Byron. Corsair.

Groups, The, a name given by captain Cook to several islands in the South Pacific Ocean, in 1769; and extending from north-west by north, to south-east by south, about nine leagues. The two largest are separated from each other by a channel about half a mile broad, and surrounded by small islands, to which they are joined by reefs. These islands are supposed to have been first discovered by Roggewein. The southernmost lies in long. 142° 42′ W., lat. 18° 12′ S.

GROUPUS, a handsome sea-port on the coast of Brasil, South America. It has a fine and capacious harbour, with good anchorage. The climate is good; and the soil yields 100 fold for whatever is planted in it. It is particularly noted for its delicious fruits. Lat. 26° 26′ S.

GROUSE, *n. s.* Lat. *ericeus.* A kind of fowl; a heath-cock.

The 'squires in scorn will fly the house
For better game, and look for *grouse.* *Swift.*

Grouse, or Growse. See Tetaro.

GROUT, *n. s.* Sax. ȝrut. In Scotland they call it groats. Coarse meal or pollard; that which purges off; a kind of wild apple.

Sweet honey some condense, some purge the *grout;*
The rest, in cells apart, the liquid nectar shout.
Dryden.

King Hardicanute, 'midst Danes and Saxons stout,
Caroused in nut-brown ale, and dined on *grout:*
Which dish its pristine honour still retains,
When each prince is crowned in splendour reigns.
King.

GROUTHEAD, or Greathead (Robert), a learned bishop of Lincoln, born at Stow in Lincolnshire, or Stradbrook in Suffolk, in the end of the twelfth century. His parents were so poor, that when a boy he was obliged to do the meanest offices, and even to beg his bread; till the mayor of Lincoln, struck with his appearance, took him into his family, and put him to school. Here his ardent love of learning soon appeared, and procured him many patrons, who enabled him to prosecute his studies, first at Cambridge, afterwards at Oxford, and at last at Paris. In these three famous seats of learning he spent many years in the most indefatigable pursuit of knowledge, and became one of the most universal scholars of the age. He was master not only of the French and Latin, but also of the Greek and Hebrew languages, a very rare accomplishment in those times. Roger Bacon, who was intimately acquainted with him, says that he spent much of his time for almost forty years in the study of geometry, astronomy, optics, and other branches of mathematical learning, in all which he very much excelled. Theology was his favorite study, in which he read lectures at Oxford with great applause. In the mean time he obtained several preferments in the church, and was at length elected and consecrated bishop of Lincoln, A. D. 1235. In this station he soon became celebrated for the purity of his manners, the popularity of his preaching, the vigor of his discipline, and the boldness with which he reproved the vices, and opposed the arbitrary mandates of the court of Rome; of this last we shall give one example. Pope Innocent IV. had granted to one of his own nephews, named Frederick, who was but a child, a provision to the first canon's place in the church of Lincoln that should become vacant; and sent a bull to the archbishop of Canterbury, and Innocent, then papal legate in England, commanding them to see the provision made effectual; which they transmitted to the bishop of Lincoln. But that brave and virtuous prelate boldly refused to obey this unreasonable mandate, and sent an answer to the papal bull, containing a severe reproach against his holiness for abusing his power: 'If we except,' said he, 'the sins of Lucifer and Antichrist, there neither is nor can be a greater crime, nor any thing more contrary to the doctrine of the gospel, or more odious and abominable in the sight of Jesus Christ, than to ruin and destroy the souls of men, by depriving them of the spiritual aid and ministry of their pastors. This crime is committed by those who command the benefices intended for the support of able pastors, to be bestowed on those who are incapable of performing the duties of the pastoral office. It is impossible, therefore, that the holy apostolic see, which received its authority from the Lord Jesus Christ, for edification, and not for destruction, can be guilty of such a crime, or any thing approaching to such a crime, so hateful to God, and so hurtful to men. For this would be a most manifest corruption and abuse of its authority, which would forfeit all its glory, and plunge it into the pains of hell.' Upon reading this letter, his holiness became frantic with rage, and threatened to make the bishop an object of terror and astonishment to the whole world. 'How dare,' said he, 'this old, deaf, doating fool, disobey my commands? Is not his master the king of England my subject? Cannot he cast him into prison, and crush him in a moment?' But the cardinals induced the pope to think more calmly, and to take no notice of this letter. The bishop did not long survive this noble stand against the gross corruptions and tyranny of the church of Rome. He fell sick at his castle of Bugden that same year; and, sensible that his death was drawing near, he called his clergy into his apartment, and made a long discourse to them, to prove that the reigning pope Innocent IV. was Antichrist. With this exertion, his strength was so much exhausted, that he expired soon after, October 9th, 1253. A contemporary historian says, 'He was a free and bold reprimander of the pope and the king; an admonisher of the prelates; a corrector of the monks; an instructor of the clergy; a supporter of the studious; a censurer of the incontinent; a scourge and terror to the court of Rome; a diligent searcher of the scriptures; and a frequent preacher to the people. At his table he was hospitable, polite, and cheerful. In the church he was contrite, devout, and solemn; and in performing all the duties of his office he was venerable, active, and indefatigable.' The illustrious Roger Bacon has given this honorable testimony in his favor:—'Robert Grouthead, bishop of Lincoln, and his friend friar Adam de Marisco, are the two most learned men in the world, and excel all the rest of mankind both in divine and human knowledge.' This excellent prelate was a very voluminous writer, and composed a prodigious number of treatises on a

great variety of subjects in philosophy and divinity, a catalogue of which is given by Bayle.

GROW, *v. n. preter.* grew, *part. pass.* grown. Sax. ȝnopan; Belg. *groyen*; Goth. *groa*; Swed. *gro*. The general idea given by this word is procession or passage from one state to another. It is always change, but not always increase; for a thing may grow less, as well as grow greater. To vegetate; to have vegetable motion; to increase by vegetation.

He causeth the grass to *grow* for the cattle, and herb for the service of man. *Psalm* civ. 14.

It is not the *growing* of fruit that nourish man; but it is thy word which preserveth them. *Wisd.* xvi. 26.

To be produced by vegetation.

And the third apple of the thre,
Which *groweth* lowest on the tree,
Who it beres, ne may not faile
That to his plesaunce may availe.
Chaucer's Dreame.

A bag that *groweth* in the fields, at the first is hard like a tennis-ball, and white, and after *groweth* of a mushroom-colour, and full of light dust.
Bacon's Natural History.

In this country *groweth* abundance of that wood, which since is brought into Europe to die red colours.
Abbot.

But say, where *grows* the tree? from hence how far?
Milton.

In colder regions men compose
Poison with art; but here it *grows*. *Waller.*

Those towers of oak o'er fertile plains might go,
And visit mountains where they once did *grow*. *Id.*

To shoot in any particular form.

Children, like tender osiers, take the bow;
And, as they first are fashioned, always *grow*.
Dryden's Juvenal.

To increase in stature.

The poor man had nothing, save one little ewe-lamb, which he had bought and reared up; and it *grew* up together with him and with his children.
2 *Sam.* xii. 3.

I long with all my heart to see the prince;
I hope he is much *grown* since last I saw him.
Shakspeare. Richard III.

To come to manhood from infancy; commonly followed by *up*.

To mischief trained, e'en from his mother's womb,
Grown old in fraud, though yet in manhood's bloom,
Adopting arts, by which gay villains rise,
And reach the heights which honest men despise.
Churchill.

Oft am I by the women told,
Poor Anacreon! thou *growest* old. *Cowley.*

Now the prince *groweth up* fast to be a man, and is of a sweet and excellent disposition.
Bacon's Advice to Villiers.

The main thing to be considered, in every action of a child, is how it will become him when he is bigger, and whither it will lead him when he is *grown up*.
Locke.

We are brought into the world children, ignorant and impotent; and we *grow up* in vanity and folly.
Wake.

But who can view the ripened rose, nor seek
To wear it? who can curiously behold
The smoothness and the sheen of beauty's cheek,
Nor feel the heart can never all *grow* old.
Byron. Childe Harold.

To issue, as plants from a soil, or as branches from the main trunk.

They will seem not struck into him, but *growing* out of him. *Dryden's Æneid, Dedication.*

To increase in bulk; to become greater, or more numerous.

Bones, after full growth, continue at a stay: as for nails, they *grow* continually.
Bacon's Natural History.

Then their numbers swell,
And *grow* upon us. *Denham.*

Divisions *grow* upon us, by neglect of practick duties: as every age degenerated from primitive piety, they advanced in nice enquiries. *Decay of Piety.*

To improve; to make progress.

Grow in grace, and in the knowledge of our Lord and Saviour Jesus Christ. 2 *Pet.* iii. 18.

He then dispensed his best of legacies, his blessings; most passionately exhorting the young *growing* hopes of the family. *Fell.*

As he *grew* forward in years he was trained up to learning, under one Pronapides, who taught the Pelasgick letter, invented by Linus. *Pope.*

To advance to any state.

They doubted whereunto this would *grow*.
Acts v. 24.

Nature, as it *grows* again towards earth,
Is fashioned for the journey dull and heavy.
Shakspeare.

The king, by this time, was *grown* to such an height of reputation for cunning and policy, that every accident and event that went well was laid and imputed to his foresight. *Bacon.*

But when to ripened manhood he shall *grow*,
The greedy sailor shall the seas forego. *Dryden.*

To come by degrees; to reach any state gradually.

After they *grew* to rest upon number, rather competent than vast, they *grew* to advantages of place, cunning diversions, and the like; and they *grew* more skilful in the ordering of their battles.
Bacon's Essays.

The royal evil so malignant *grows*,
Nothing the dire contagion can oppose.
Marvell.

Verse, or the other harmony of prose, I have so long studied and practised, that they are *grown* into a habit, and become familiar to me. *Dryden.*

The trespasses of people are *grown* up to heaven, and their sins are got beyond all restraints of law and authority. *Rogers.*

To come forward; to gather ground.

Some seeing the end of their government nigh, and troublous practice *growing* up, which may work trouble to the next governour, will not attempt redress.
Spenser on Ireland.

It was now the beginning of October, and Winter began to *grow* fast on: great rain, with terrible thunder and lightning, and mighty tempests, then fell abundantly. *Knolles.*

To be changed from one state to another; to become either better or worse; to turn.

A good man's fortune may *grow* out at heels.
Shakspeare.

Scipio Nasica feared lest, if the dread of that enemy were taken away, the Romans would *grow* either to idleness or civil dissension. *Abbot.*

Tell me of liberty, the story's fine,
Until you all *grow* consuls in your wine.
Marvell.

Hence, hence, and to some barbarous climate fly,
Which only brutes in human form does yield,
And man *grows* wild in nature's common field.
Dryden.

The nymph *grew* pale, and in a mortal fright,
Spent with the labour of so long a flight. *Id.*

Patient of command
In time he *grew*; and *growing* used to hand,
He waited at his master's board for food. *Id.*

We may trade and be busy, and *grow* poor by it, unless we regulate our expences. *Locke.*

Delos, by being reckoned a sacred place, *grew* to be a free port, where nations warring traded, as in a neutral country. *Arbuthnot.*

As with cold lips I kissed the sacred veil,
The shrines all trembled, and the lamps *grew* pale. *Pope.*

You will *grow* a thing contemptible, unless you can supply the loss of beauty with more durable qualities. *Swift.*

Some for renown, on scraps of learning doat,
And think they *grow* immortal as they quote. *Young.*

By degrees the vain, deluded elf,
Grew out of humour with his former self. *Harte.*

To proceed as from a cause or reason.

Take heed now that ye fail not to do this: why should damage *grow* to the hurt of the king? *Ez.* iv. 22.

What will *grow* out of such errours, as masked under the cloak of divine authority, impossible it is that ever the wit of man should imagine, 'till time have brought forth the fruits of them. *Hooker.*

Shall we set light by that custom of reading, from whence so precious a benefit hath *grown*? *Id.*

Hence *grows* that necessary distinction of the saints on earth and the saints in heaven; the first belonging to the militant, the second to the triumphant church. *Pearson.*

The want of trade in Ireland proceeds from the want of people; and this is not *grown* from any ill qualities of the climate or air, but chiefly from so many wars. *Temple.*

To accrue; to be forthcoming.

Even just the sum that I do owe to you,
Is *growing* to me by Antipholis. *Shakspeare.*

To adhere; to stick together.

Honour and policy, like unsevered friends,
I' the' war do *grow* together. *Id. Coriolanus.*

The frog's mouth *grows* up, and he continues so for at least six months without eating. *Walton.*

In burnings and scaldings the fingers would many times *grow* together; the *chin* would *grow* to the breast, and the arms to the sides, were they not hindered. *Wiseman's Surgery.*

To swell: a sea term.

Mariners are used to the tumbling and rolling of ships from side to side, when the sea is never so little *grown.* *Raleigh.*

GROWN, *adj.* } Advanced in growth:
GROWTH, *n. s.* } covered or filled by the growth of any thing.

I went by the field of the slothful, and by the vineyard of the man void of understanding; and lo, it was all *grown* over with thorns, and nettles had covered the face thereof. *Proverbs.*

Arrived at full growth or stature.

I saw lately a pair of China shoes, which I was told were for a *grown* woman, that would scarce have been big enough for one of our little girls. *Locke.*

Vegetation; vegetable life; increase of vegetation.

Deep in the palace of long *growth* there stood
A laurel's trunk of venerable wood.
Dryden's Æneid.

Those trees that have the slowest *growth*, are, for that reason, of the longest continuance. *Atterbury.*

Product; production; thing produced; act of producing.

Forbidding every bleak unkindly fog
To touch the prosperous *growth* of this tall wood.
Milton.

The trade of a country arises from the native *growths* of the soil or seas. *Temple.*

I had thought, for the honour of our nation, that the knight's tale was of English *growth*, and Chaucer's own. *Dryden.*

Our little world, the image of the great,
Of her own *growth* hath all that nature craves,
And all that's rare, as tribute from the waves. *Waller.*

Increase in number, bulk, or frequency.

What I have tried, or thought, or heard upon this subject, may go a great way in preventing the *growth* of this disease, where it is but new. *Temple.*

Increase of stature; advance to maturity.

They say my son of York
Has almost overtaken him in his *growth*.
Shakspeare.

The stag, now conscious of his fatal *growth*,
To some dark covert his retreat had made.
Denham.

Though an animal arrives at its full *growth* at a certain age, perhaps it never comes to its full bulk 'till the last period of life. *Arbuthnot on Aliments.*

If parents should be daily calling upon God in a solemn, deliberate manner, altering and extending their intercessions, as the state and *growth* of their children required, such devotion would have a mighty influence upon the rest of their lives. *Law.*

Improvement; advancement.

It grieved David's religious mind to consider the *growth* of his own estate and dignity, the affairs of religion continuing still in the former manner. *Hooker.*

GROW'ER, *n. s.* From grow. An increaser.

It will grow to a great bigness, being the quickest *grower* of any kind of elm. *Mortimer.*

To GROWL, *v. n.* Flem. *grollen.* To snarl or murmur like an angry cur: to murmur; to grumble.

Othello, neighbours—how he would roar about a foolish handkerchief! and then he would *growl* so manfully. *Gay.*

They roam amid the fury of their heart,
And *growl* their horrid loves. *Thomson's Spring.*

Dogs in this country are of the size of common mastiffs, and by nature never bark, but *growl* when they are provoked. *Ellis.*

GRO'WTHEAD, *n. s.* } Lat. *capito.* From
GRO'WTNOL, *n. s.* } gross or greathead. A kind of fish.—Ainsworth. An idle lazy fellow. Obsolete.

Though sleeping one hour refresheth his song,
Yet trust not Hob *growthead* for sleeping too long.
Tusser.

GRUB, *v. a.* & *n. s.* } Goth. *graban*, preter.
GRUB'BLE, *v. n.* } *grôb*, to dig. To dig up; root out of the ground; eradicate. A grub is a small worm that eats holes in bodies; a dwarf: to grubble, to feel in the dark.

There is a difference between a *grub* and a butterfly, and yet your butterfly was a *grub.* *Shakspeare.*

John Romane, a short clownish *grub*, would bear the whole carcase of an ox, yet never tugged with him. *Carew.*

Thou hast a colour;
Now let me rowl and *grubble* thee:
Blind men say white feels smooth, and black feels rough:
Thou hast a rugged skin; I do not like thee.
Dryden.

New creatures rise,
A moving mass at first, and short of thighs;
'Till shooting out with legs, and imped with wings,
The *grubs* proceed to bees with pointed stings. *Id.*

Forest land,
From whence the surly ploughman *grubs* the wood.
Id.

A foolish heir caused all the bushes and hedges about his vineyard to be *grubbed* up. *L'Estrange.*

The *grubbing* up of woods and trees may be very needful, upon the account of their unthriftiness.
Mortimer.

The *grub*,
Oft unobserved, invades the vital core;
Pernicious tenant! and her secret cave
Enlarges hourly, preying on the pulp
Ceaseless. *Philips.*

As for the thick woods, which not only Virgil but Homer mentions, they are most of them *grubbed* up, since the promontory has been cultivated and inhabited. *Addison on Italy.*

GRUB, in zoology, is the English name of the hexapode worms, produced from the eggs of beetles, &c., and which at length are transformed into winged insects of the same species with their parents. See ERUCA.

GRUBENHAGEN, a principality of the kingdom of Hanover. It is fertile, but the greater part is mountainous, and, besides feeding a great number of sheep and black cattle, abounds with mines of silver, copper, lead, iron, sulphur, calamine, and zinc; quarries of marble, slates, limestones, alabaster, and jasper of different kinds. It has also some mines of gold, but these are not rich. The forests abound with oak, beech, firs, elms, &c. The inhabitants are Lutherans, and carry on linen manufactures. Eimbeck is the capital. Population about 60,000.

GRU'BSTREET, *n. s.* The name of a street, near Moorfields, London, much inhabited at one time by writers of small histories, dictionaries, and temporary poems; whence any mean production is called Grubstreet.

Χαίρ Ιθακη μετ' ἀιθλα, μετ' ἄλγεα πικρα
'Ασπασίως τέον ἔδας ικάνομαι.

The first part, though calculated only for the meridian of *Grubstreet*, was yet taken notice of by the better sort. *Arbuthnot.*

I'd sooner ballads write, and *Grubstreet* lays.
Gay.

GRUCIUS (Nicolas), a French author of the sixteenth century, born at Rouen. He is said to have been the first who lectured on Aristotle in Greek. He wrote several works: the chief of which are, 1. A Treatise De Comitiis Romanorum: 2. Tracts against Sigonius: and A Translation of Castanedo's History of the Indies. He died at Rochelle, in 1572.

GRUDGE, *v. a., v. n.* & *n. s.*, GRUDG'INGLY, *adv.*, GRUTCH, *v. n.* & *n. s.* } Sax. gewnæc, from Fr. *gruger*, according to Skinner, to grind or eat. In this sense we say of one who resents any thing secretly he chews it. *Grugnach*, in Welsh, is to murmur; to grumble. *Grunigh*, in Scotland, denotes a grumbling morose countenance. To envy; repine; to give unwillingly; to murmur: an old quarrel; malevolence; sullenness; anger; remorse; reluctance.

Grudge not one against another, brethren, lest ye be condemned. *James* v. 9.

He gan to *grutch*, and blamen it a lēte.
Chaucer. Prologue to the Reves Tale.

For where a lover thinking promote,
Envie wil *grutche*, repining at his wele.
Id. The Court of Love.

The poor at the enclosure doth *grutch*,
Because of abuses that fall,
Lest some men should have but too much,
And some again nothing at all.
Tusser's Husbandry.

They knew the force of that dreadful curse, whereunto idolatry maketh subject; nor is there cause why the guilty sustaining the same should *grudge* or complain of injustice. *Hooker.*

'Tis not in thee
To *grudge* my pleasures, to cut off my train.
Shakspeare.

Two households, both alike in dignity,
From ancient *grudge* break to new mutiny,
Where civil blood makes civil hands unclean. *Id.*

Let me go in to see the generals:
There is some *grudge* between 'em; 'tis not meet
They be alone. *Id. Julius Cæsar.*

Many times they go with as great *grudging* to serve in his majesty's ships, as if it were to be slaves in the gallies. *Raleigh.*

Those to whom you have
With *grudge* preferred me. *Ben Jonson.*

But what we're born for we must bear,
Our frail condition it is such,
That what to all may happen here,
If 't chance to me I must not *grutch*. *Id.*

In it he melted leaden bullets
To shoot at foes, and sometimes pullets;
To whom he bore so fell a *grutch*,
He ne'er gave quarter to' any such. *Hudibras.*

What means this banishing me from your counsels? Do you love your sorrow so well, as to *grudge* me part of it? *Sidney.*

Many countries about her were full of wars, which, for old *grudges* to Corinth, were thought still would conclude there. *Id.*

He struggles into birth, and cries for aid;
Then helpless in his mother's lap is laid:
He creeps, he walks; and, issuing into man,
Grudges their life from whence his own began.
Dryden.

These clamours with disdain he heard,
Much *grudged* the praise, but more the robbed reward. *Id.*

My Dolabella,
Hast thou not still some *grudgings* of thy fever?
Id.

You steer betwixt the country and the court,
Nor gratify whate'er the great desire,
Nor *grudging* give what publick needs require.
Id. Fables.

E'en in the most sincere advice he gave,
He had a *grudging* still to be a knave. *Id.*

Let me at least a funeral marriage crave,
Nor *grudge* my cold embraces in the grave. *Id.*

Like harpies they could scent a plenteous board;
Then to be sure they never failed their lord:
The rest was form, and bare attendance paid;
Then drank and eat, and *grudgingly* obeyed. *Id.*

Do not, as some men, run upon the tilt, and taste of the sediments of a *grudging* uncommunicative disposition. *Addison. Spectator.*

They have *grudged* those contributions, which have set our country at the head of all the governments of Europe. *Addison.*

Deep festered hate:
A *grudge* in both, time out of mind, begun,
And mutually bequeathed from sire to son.
Tate.

We do not *grudge* or repine at our portion, but are contented with those circumstances which the providence of God hath made to be our lot. *Nelson.*

Let us consider the inexhausted treasures of the ocean; and though some have *grudged* the great share that it takes of the surface of the earth, yet we shall propose this too, as a conspicuous mark and character of the wisdom of God. *Bentley.*

I have often heard the Presbyterians say they did not *grudge* us our employments. *Swift.*

The god of wit, to shew his *grudge*,
Clapt ass's ears upon the judge. *Id.*

GRUEL, *n. s.* Fr. *gruau, gruelle.* Food made by boiling oatmeal in water; any kind of mixture made by boiling ingredients in water.

Finger of birth-strangled babe,
Ditch-delivered by a drab;
Make the *gruel* thick and slab.
Shakspeare. Macbeth.

Was ever Tartar fierce or cruel
Upon the strength of water *gruel?* *Prior.*

Gruel made of grain, broths, malt drink not much hopped, posset-drinks, and in general whatever relaxeth. *Arbuthnot.*

But keen Xantippe scorning borrowed flame,
Can vent her thunders and her lightnings play
O'er cooling *gruel* and composing tea. *Young.*

GRUFF, *adj.* } Belg. *groff*; Swed. *grof.*
GRUFF'LY, *adv.* } Sour of aspect; harsh of
GRUFF'NESS, *n. s.* } manners; rugged; rough. Hoarse as applied to sounds.

The form of Mars high on a chariot stood,
All sheathed in arms, and *gruffly* looked the god.
Dryden.

The appellation of honour was such an one the *gruff*, such an one the stocky. *Addison.*

Around the fiend, in hideous order, sat
Foul bawling infamy and bold debate,
Gruff discontent through ignorance misled.
Garth.

GRUM, *adj.* } Gothic *grum*, anger,
GRUM'BLE, *v. n.* } Swed. *grumla*, to trouble.
GRUM'BLER, *n. s.* } To murmur with discon-
GRUM'BLING, *n. s.* } tent; to growl; to make
GRUM'LY, *adv.* } a deep hoarse noise as thunder; to mutter.

A bridegroom
A *grumbling* groom, and that the girl shall find.
Shakspeare.

Thou *grumblest* and railest every hour on Achilles, and thou art as full of envy at his greatness as Cerberus is at Proserpina's beauty. *Id.*

I have served
Without or grudge or *grumblings*. *Id.*

The' accurst Philistian stands on the' other side,
Grumbling aloud, and smiles 'twixt rage and pride.
Cowley

The lion, though he sees the toils are set,
Yet pinched with raging hunger, scours away;
Hunts in the face of danger all the day;
At night, with sullen pleasure, *grumbles* o'er his prey.
Dryden.

Providence has allotted man a competency: all beyond it is superfluous; and there will be *grumbling* without end, if we reckon that we want this, because we have it not. *L'Estrange.*

Suitors, all but one, will depart *grumbling*, because they miss of what they think their due. *South.*

Thou *grumbling* thunder join thy voice. *Motteux.*

Like a storm
That gathers black upon the frowning sky,
And *grumbles* in the wind.
Rowe's Royal Convert.

L'Avare, not using half his store,
Still *grumbles* that he has no more. *Prior.*

Nic looked sour and *grum*, and would not open his mouth. *Arbuthnot.*

The half-pence are good half-pence, and I will stand by it; if I made them of silver, it would be the same thing to the *grumbler*. *Swift.*

Vapours foul
Dash on the mountain's brow, and shake the woods
That *grumbling* wave below. *Thomson's Winter.*

'Right,' cry'd his lordship in a *grumbling* tone,
Much like a mastiff jealous of a bone. *Dr. Walcot.*

GRUME, *n. s.* } Fr. *grumeau*; Lat.
GRU'MOUS, *adj.* } *grumus*. A thick viscid
GRU'MOUSNESS, *n. s.* } consistence of a fluid: as the white of an egg, or clotted like cold blood. —*Quincy.*

The cause may be referred either to the coagulation of the serum, or *grumousness* of the blood.
Wiseman's Surgery.

The blood, when let, was black, *grumous*, the red part without a due consistence, the serum saline, and of a yellowish green. *Arbuthnot.*

GRUNBERG, a considerable manufacturing town of Silesia, the chief place of a district in the principality of Glogau. The inhabitants are employed chiefly in manufacturing cloth. The environs of the town are fertile, and partly under the culture of the vine. Fullers' earth is also found here. Twenty miles north of Sagau, and thirty north-west of Gros Glogau. Population 8000.

GRUNSEL, *n. s.* More usually groundsil, unless Milton intended to preserve the Saxon ȝrunᵹ, says Dr. Johnson. The groundsel; the lower part of the building.

Next came one
Who mourned in earnest, when the captive ark
Maimed his brute image, heads and hands lopped off
In his own temple, on the *grunsel* edge,
Where he fell flat, and shamed his worshippers.
Milton.

GRUNT, *v. n.* & *n. s.* } Lat. *grunnio*; Goth.
GRUNTLE, *v. n.* } and Swed. *runte*, a
GRUNTER, *n. s.* } boar. To murmur like
GRUNTLING, *n. s.* } a hog; a young pig.

And neigh, and bark, and *grunt*, and roar and burn,
Like horse, hound, hog, bear, fire, at every turn.
Shakspeare.

Swine's snouts, swine's bodies, took they, bristles, *grunts*. *Chapman.*

Ran cow and calf, and family of hogs,
In panick horrour of pursuing dogs;
With many a deadly *grunt* and doleful squeak,
Poor swine, as if their pretty hearts would break.
Dryden.

From hence were heard
The *grunts* of bristled boars, and groans of bears,
And herds of howling wolves. *Id. Æneid.*

Lament, ye swine! in *gruntings* spend your grief,
For you, like me, have lost your sole relief. *Gay.*

Thy brinded boars may slumber undismayed,
Or *grunt* secure beneath the chestnut shade. *Tickel.*

The scolding quean to louder notes doth rise,
To her full pipes the *grunting* hog replies;
The *grunting* hogs alarm the neighbours round.
Swift.

Cased all in loathsome mire: no word; Gryll could but *grunt*. *Fletcher's Purple Island.*

The sophist's rope of cobweb he shall twine,
Mope o'er the schoolman's peevishness; or mourn
And delve for life in Mammon's dirty mine,
Sneak with the scoundrel fox, or *grunt* with glutton swine. *Beattie.*

GRUTER (James), a learned philologer, and one of the most laborious writers of his time, was born at Antwerp in 1560. When a child, his father and mother, being persecuted for the Protestant religion by the duchess of Parma, carried him into England. He imbibed the elements of learning from his mother, who was one of the most learned women of the age, and besides French, Italian, and English, was a complete mistress of Latin, and well skilled in Greek. He studied at Cambridge, afterwards at Leyden, and at last applied himself wholly to polite literature. After travelling much he became professor in the University of Heidelburgh; near which city he died in 1627. He wrote many works; the principal are, 1. A large collection of Ancient Inscriptions. 2. Thesaurus Criticus. 3. Deliciæ Poetarum Gallorum, Italorum, et Belgarum, &c.

GRUTLIN, a plain of Switzerland, near the lake of the Four Cantons, in the canton of Uri, famous for being the scene of the association of the three first cantons, in defence of their liberty, A. D. 1307.

GRUYERES, Gruyers, or Gruyires, a town, and formerly county and bailiwic of Switzerland, in the canton of Friburg, famous for cheese; which is exported to a considerable amount to France, Germany, and Italy. A dangerous insurrection broke out here in 1781, which threatened the destruction of the city of Friburg, before it was quelled by the assistance of troops from Berne. It lies fifteen miles south of Friburg. Long. 7° 23′ E., lat. 46° 35′ N.

GRYLLUS, the son of Xenophon, who slew the celebrated Theban general Epaminondas, and was also killed himself at the battle of Mantinea, A. A. C. 363. Xenophon, who was sacrificing when he heard of his death, instantly threw off his garland, but, upon being farther informed that his son had slain the enemy's general, immediately replaced it.

Gryllus, in entomology, a genus of insects, belonging to the order of hemiptera, comprehending the crickets, locusts, and grasshoppers. The general characters are these: the head is inflected, armed with jaws, and furnished with palpi: the antennæ filiform; the wings are deflected towards and wrapped round the sides of the body; the under ones are folded up, so as to be concealed under the elytra: the thorax is flat and marginated. All the feet are armed with two nails; and the hind ones are formed for leaping. Under our article Entomology we have in some measure described the habits of this destructive genus of insects, and their depredations on particular occasions. We shall here, therefore, only enumerate the different species, with an account of some of their haunts, habits, &c.

G. campestris, the field cricket, and the domestic cricket, are varieties of the same species, differing only in color and habits; the latter being paler colored, and having more of a yellow cast, and the former more of a brown. The antennæ are as slender as a thread, and nearly equal to the body in length. The head is large, and round, with two large eyes, and three smaller ones of a light yellow color, placed higher on the edge of the depression, from the centre of which originate the antennæ; the thorax is broad and short. In the males the elytra are longer than the body, veined, as it were rumpled on the upper part, crossed one over the other, and enfolding part of the abdomen, with a projecting angle on the sides; they have also at their base a pale-colored band. In the females the elytra leave one-third of the abdomen uncovered, and scarcely cross each other; and they are all over of one color, veined and not rumpled: nor do they wrap round so much of the abdomen underneath. The female, moreover, carries at the extremity of its body a hard spine, almost as long as the abdomen, thicker at the end, composed of two sheaths, which encompass two laminæ: this implement serves the insect to sink and deposit its eggs in the ground. Both the male and female have two pointed soft appendices at the extremity of the abdomen. Their hinder feet are much larger and longer than the rest, and serve them for leaping. They are very shy and cautious, and, feeling a person's footsteps as he advances, they stop short in the midst of their song, and retire backward nimbly into their burrows, where they lurk till all suspicion of danger is over.

G. domesticus, the domestic or hearth cricket, does not require to be sought after for examination: it resides altogether within our dwellings, intruding itself upon our notice, whether we wish for it or not.

G. gryllotalpa, the mole cricket, is of a very unpleasant form. Its head, in proportion to the size of its body, is small and oblong, with four long thick palpi, and two long antennæ as slender as threads. Behind the antennæ are situated the eyes, and between those two eyes are seen three stemmata or less eyes, amounting to five in all, set in one line transversely The thorax forms a kind of cuirass, oblong, almost cylindrical, which appears as it were velvtty. The elytra, which are short, reach but to the middle of the abdomen, are crossed one over the other, and have large black or brown nervous fibres. The wings terminate in a point, longer not only than the elytra, but even than the abdomen. This latter is soft, and ends in two points or appendices of some length. But the chief singularity of this insect is in its fore feet, which are very large and flat, with broad legs, ending outwardly in four large serrated claws, and inwardly in two only; between which claws the tarsus is situated. The whole animal is of a brown dusky color. It haunts moist meadows, and frequents the sides of ponds and banks of streams, performing all its functions in a swampy wet soil. With a pair of fore-feet, curiously adapted to the purpose, it burrows and works under ground like the mole, raising a ridge as it proceeds, but seldom throwing up hillocks. As mole crickets often infest gardens by the sides of canals, they are un-

welcome guests to the gardener, raising up ridges in their subterraneous progress, and rendering the walks unsightly. If they take to the kitchen quarters, they occasion great damage among the plants and roots, by destroying whole beds of cabbages, young legumes and flowers. When dug out, they seem very slow and helpless, and make no use of their wings by day; but at night they come abroad, and make long excursions. In fine weather about the middle of April, at the close of day, they begin to solace themselves with a low, dull, jarring note, continued for a long time without interruption, and not unlike the chattering of the fern owl, or goat-sucker, but more inward. About the beginning of May they lay their eggs, as Mr. White informs us, who was once an eye-witness: for a gardener, at a house where he was on a visit, happening to be mowing on the 6th of that month, by the side of a canal, his scythe struck too deep, pared off a large piece of turf, and laid open to view a curious scene of domestic economy. There were many caverns and winding passages leading to a kind of chamber neatly smoothed and rounded, and about the size of a moderate snuff-box. Within this secret nursery were deposited near 100 eggs of a dirty yellow color, and enveloped in a tough skin, but too lately excluded to contain any rudiments of young, being full of a viscous substance. The eggs lay but shallow, and within the influence of the sun, just under a little heap of fresh mowed mould, like that which is raised by ants. When mole crickets fly, they move 'cursu undoso,' rising and falling in curves, like the other species mentioned before. In different parts of this kingdom people call them Fen-crickets, churr-worms and evechurrs, all very apposite names.

G. locustæ (the grylli of Fabricius), or locusts unarmed at the tail. This family is distinguished by having the tail purple: their antennæ are filiform or cylindrical, and half shorter than the abdomen; they have three stemmata, and three joints to the tarsi. According to the observation of the abbé Pouet, those which have their abdomen furnished with the tube or dart, above mentioned, lay their eggs in a stiff sort of earth which that instrument perforates. During the operation the dart opens; and, being hollow and grooved on each side within, the egg slides down along the grooves, and is deposited in the hole. Of those which have the tails simple, i. e. which have no dart, some have long wings, and some very short. The long winged sort lay their eggs on the bare ground, and have no use for a perforating instrument; but they cover them with a glutinous substance, which fixes them to the soil, and prevents their being injured either by wind or wetness. Those, again, which have short wings, deposit their eggs in the sand; and, to make the holes for this purpose, they have the power of elongating and retracting their abdominal rings, and can turn their body as on a pivot; in which operation long wings would have been a material impediment. The annals of most warm countries are filled with accounts of the devastations produced by locusts, which sometimes appear in clouds of vast extent.

G. tettigoniæ, grasshoppers, or locusts armed at the tail. The females of this family are distinguished by a tubular dart at the extremity of their abdomen: in both sexes the antennæ are setaceous, and longer than the abdomen; and the tarsi composed of four articulations. They leap by the help of their hinder legs, which are strong and much longer than the fore ones. Their walk is heavy, but they fly tolerably well. Their females deposit their eggs in the ground, by means of the appendices which they carry in their tail, which consist of two laminæ, and penetrate the ground. They lay a great number of eggs at a time; and those eggs, united in a thin membrane, form a kind of group. The little larvæ that spring from them are wholly like the perfect insects, excepting in size, and their having neither wings nor elytra, but only a kind of knobs, four in number, which contain both, but undisplayed. The unfolding of them only takes place at time of the metamorphosis, when the insect has attained its full growth. In these insects, when examined internally, besides the gullet, we discover a small stomach; and, behind that, a very large one, wrinkled and furrowed within side. Lower down there is still a third; so that it is thought, and with some probability, that all the animals of this genus chew the cud, as they so much resemble ruminant animals in their internal conformation.

G. verrucivorus, the wart-eating grasshopper, has green wings, spotted with brown, and is caught by the common people in Sweden to destroy warts, which they are said to do by biting off the excrescence and discharging a corrosive liquor on the wound.

GRYNÆUS (Simon), a learned German, the son of a peasant of Suabia, born at Veringen, in Hohenzollern, in 1493. He was Greek professor at Vienna, and afterwards at Heidelberg, in 1523. Being a Protestant he was exposed to much persecution, and in 1531 took refuge in England; where he was received with great kindness by Sir Thomas More, to whom Erasmus had recommended him. He was the first who published the Almagest of Ptolemy in Greek. He also published a Greek Euclid, and Plato's works, with some commentaries of Proclus. He died at Basil in 1541.

GRYPHITES, in natural history, or crow's-stone, an oblong fossil shell, very narrow at the head, and becoming gradually wider to the extremity, where it ends in a circular limb; the head or beak of this is very hooked or bent inward. They are frequently found in our gravel or clay pits in many counties. There are three or four distinct species; some extremely round and convex on the back, others less so; and the plates of which they are composed are in some smaller and thinner, in others thicker and larger, in specimens of the same bigness.

GRYPHIUS (Sebastian), a celebrated printer of Lyons in France, was born in Suabia near Augsburg, in 1494. He restored the art of printing at Lyons, which was before exceedingly corrupted; and the books printed by him

e still valued by connoisseurs. He printed any books in Hebrew, Greek, and Latin, with w and very beautiful types; and his editions e no less accurate than elegant. Thus a cerin epigrammatist has observed, that Robert ephens was a very good corrector, Colinæus very good printer, but that Gryphius was both able printer and corrector. He died in 1556, his sixty-third year; and his business was rried on with reputation by his son Anthony ryphius. One of the most beautiful books of bastian Gryphius is a Latin bible: it was inted in 1550, with the largest types that had en been seen, in 2 vols. folio.

GRYPHUS. See GRIFFON.

GUADAGNI (Gaetono), in biography, a na- e of Vicenza, one of the most celebrated opera igers of the last century, and also greatly ad- ired for his dignity, grace, and intelligence, as actor. He first came into England with a mpany of burletta singers, brought hither by oza, an adventurous impresario, in 1748. The isic he sung was the most simple imaginable; ew notes with frequent pauses, and opportuni- s of being liberated from the composer and the nd, were all he wanted. And, in these seemingly temporaneous effusions, he proved the in he- it power of melody totally divorced from har- ony, and unassisted even by unisonous accompaiment. Surprised at such great effects, from causes parently small, musical critics frequently tried analyse the pleasure he communicated to the au- ence, and found it chiefly arose from his artful inner of diminishing the tones of his voice, e the dying notes of the Æolian harp. Most ier singers captivate by a swell, or messa di ce; but Guadagni, after beginning a note or ssage with all the force he could safely exert, ed it off to a thread, and gave it all the effect extreme distance, though neither his voice nor ecution contributed much to charm or excite miration. He finally quitted England in the mmer of 1771; in 1772 he performed at Ve- a, and afterwards accompanied the electress wager of Saxony to Munich, where he conti- ed till 1776, when he appeared on the stage, the last time, at Venice. After which he set- d at Padua in the service of Sant' Antonio, ere he lost his sight in 1786, by a paralytic oke, and soon after his life.

GUADALAVIAR, a river of Spain, which es on the confines of Arragon and New Cas- , and running by Turvel, in Arragon, crosses kingdom of Valencia, passes the town of t name, and soon after falls into the Mediter- ean Sea a little below Valencia.

GUADALAXARA, a province and town of ain, in New Castile; the town is seated on the rares, and contains nine churches, fourteen ivents, and about 10,000 inhabitants. Here palace of the duke del Infantado, and a ca- dral church of some eminence; also a large nufacture of cloth, carried on by the public horities. It is fifty-six miles north-east of drid.

The province contains a territorial extent of 50 square miles, and 122,000 inhabitants. It very elevated land, intersected by mountains, l traversed by the Tagus and other streams. The pasturage of sheep is the principal agricultural object. It is divided into three partidas and three tierras.

GUADALAXARA, a province or intendancy of Mexico, part of the former kingdom of New Gallicia, almost twice the extent of Portugal. It is bounded on the north by the intendancies of Sonora and Durango, on the east by the intendancies of Zucatecas and Guanaxuato, on the south by the province of Valladolid, and on the west, for a length of 369 miles, by the Pacific Ocean. Its greatest breadth is 300 miles, and its greatest length (from south to north) 350 miles. It is crossed from east to west by the Rio de Santiago, which communicates with the lake of Chapala. All the eastern part of this province is the Table Land, and western declivity of the Cordilleras of Anahuac. The maritime regions, which stretch towards the great bay of Bayonne, are covered with forests, and abound in shipbuilding wood. But the climate is considered unhealthy. The interior is much better in this respect.

The Volcan de Colima of this province is the most western of the volcanoes of New Spain. The province contains two cities, six towns, and 322 villages. The most celebrated mines are at Arientos de Oburra, Bolanos, Hostiotipaquillo, Copala, and Guichichila. The population in 1803 was 630,500. The extent of surface 9612 square leagues.

GUADALAXARA, an episcopal city of Mexico, capital of the above intendancy, is both large and handsome, containing eight squares, many convents, and two colleges for education. It was built anno 1531, and is situated in a delightful and fertile plain, watered with several streams and fountains. It boasts a handsome aqueduct, and spacious gardens, replenished with excellent fruits. Here is a manufactory of cigars, and the natives make a sort of jars of a fine scented earth, in much request. Guadalaxara is about 280 miles north-west of Mexico, and contains 19,500 inhabitants.

GUADALOUPE, one of the Caribbee or Leeward Islands, lying about mid-way between Antigua and Martinico. It is forty-five miles long, thirty-eight broad, and, being of an irregular figure, is about 240 miles in circumference. It is divided into two parts by a small arm of the sea, which is not above six miles long, and from fifteen to forty fathoms broad. This canal, named the Salt River, is navigable, but only carries vessels of fifty tons burden. That part of the island which gives its name to the whole is, towards the centre, full of craggy rocks, where the cold is so intense, that nothing will grow upon them but fern and some useless shrubs covered with moss. On the top of these rocks a mountain called la Souffriere, or the Brimstone Mountain, rises to an immense height. It exhales, through various openings, a thick black smoke, intermixed with sparks that are visible by night. From all these hills flow numberless springs, which fertilise the plains below, and moderate the burning heat of the climate by a refreshing stream, so celebrated, that the galleons which formerly used to touch at the Windward Islands, had orders to renew their provision with

this pure and salubrious water. Such is that part of the island properly called Guadaloupe. That which is commonly called Grande Terre has not been so much favored by nature. It is indeed less rugged, but it wants springs and rivers. The soil is not so fertile nor the climate so wholesome. No European nation had taken possession of this island when 550 Frenchmen arrived there from Dieppe on the 28th of June, 1635. Their provisions were so ill-chosen, that they were spoiled in the passage, and were all exhausted in two months. St. Christopher's refused to spare them any: and their first attempts in husbandry could not as yet afford any thing. No resource was left but from the savages; but the superfluities of a people, who cultivate little, and never laid up stores, could not be great. The new-comers came to a resolution to plunder them; and hostilities commenced on the 16th of January, 1636. The Caribs, not thinking themselves in a condition openly to resist an enemy, who had so much the advantage from the superiority of their arms, destroyed their own provisions and plantations, and retired to Grande Terre, and the neighbouring islands. From thence the most desperate came over to Guadaloupe, and, concealing themselves in the forests, they attacked with their poisoned arrows all the Frenchmen who were hunting or fishing. During night, they burned the houses and destroyed the plantations. A dreadful famine was the consequence. The colonists were reduced to graze in the fields, and even to dig up dead bodies for their subsistence. At last the government of Aubert brought about a peace with the savages at the end of 1640. The remembrance of the hardships they had suffered proved a powerful incitement to cultivate all articles of immediate necessity; and afterwards induced an attention to those of luxury consumed in the mother country. Such as had escaped the calamities they had drawn upon themselves, were soon joined by some colonists from St. Christopher's, and from Europe. But still the prosperity of Guadaloupe was impeded by obstacles arising from its situation. The facility with which the pirates from the neighbouring islands could carry off their cattle, their slaves, and their crops, distressed them greatly. Intestine broils, arising from jealousies of authority, often disturbed the quiet of the planters. And the adventurers, who went over to the Windward Islands, disdaining a land that was fitter for agriculture than for naval expeditions, were easily drawn to Martinico by its convenient roads. In 1700 the number of inhabitants amounted only to 3825 white people, 325 savages, free negroes, and mulattoes; and 6725 slaves. There were only sixty small plantations of sugar, and sixty-six of indigo, cocoa, and cotton. But at the end of 1755 the colony was peopled with 9643 whites, and 41,140 slaves. Such was the state of Guadaloupe when it was conquered by the British, in April 1759. It was restored to France by the peace of 1763. By the survey in 1767, this island, including those of Deseada, St. Bartholomew, Marigalante, and Saints, contained 11,863 white people; 752 free blacks and mulattoes; 72,761 slaves; in all 85,376 souls. The number of cattle was 5060 horses, 4854 mules, 111 asses, 17,378 horned cattle, 14,895 sheep and goats, and 2669 hogs; the number of plantations was 1983. The sugar works employed 414 mills. The annual produce of Guadaloupe and the adjacent islands was estimated many years ago at 46,000,000lbs. of sugar, 21,000,000 of coffee, 320,000 of cotton, and 8000 of cocoa; besides logwood, ginger, rum, skins, &c. This island was again taken by the British in April 1794; retaken by the French, under Victor Hughes, in 1795; and, lastly, by the British in February, 1810. In 1812, according to a return to the house of commons, it contained, 12,747 whites, 94,328 slaves, and 7764 free blacks. Its exports in 1810 were—

12,700,437	lbs. of brown and other sugars.
1,334,387	gallons of liquor.
2,661,726	lbs. coffee.
112,208	do. cotton.
2,162	do. cacao.

In 1811.

8,216,249	lbs. of brown and other sugars.
1,380,816	gallons of liquor.
1,601,686	lbs. coffee.
219,009	do. cotton.
963	do. cacao.

Long. from 43° 24′ to 44° 15′ W. of Ferro, lat. from 15° 55′ to 16° 37′ N.

GUADALQUIVER, one of the most famous rivers of Spain, rises in Andalusia, near the confines of Granada, and running quite through Andalusia, by the towns of Baiza, Andaxar, Cordova, Seville, falls at last into the Bay of Cadiz.

GUADIANA, the ancient Anas, a large river of Spain, which rises in New Castile, and, passing across the high mountains, falls down to the lakes called Ojos of Guadiana; from whence it runs to Calatrava, Medelin, Mersda, and Badajoz, in Estremadura of Spain; and, after having traversed Alentejo in Portugal, separates Algarve from Andalusia, and falls into the bay of Cadiz, between Castro Marino and Agramonte.

GUADIX, a town of Spain, in Granada, with a bishop's see It was taken from the Moors in 1253, who afterwards retook it, but the Spaniards again got possession of it in 1489. It is situated between the Sierra Nevada and the Alpuxaras Mountains, so that, from the elevation and the consequent cold, the inhabitants are precluded from cultivating olives and oranges. The country is adapted, however, to pasture, corn, and various fruits. The town has five churches and seven convents, with 8300 inhabitants. Here are a few manufactures of hemp and flax, also of silk. Twenty-eight miles E. N. E. of Grenada.

GUAIACUM, *n. s.* A physical wood.

Guaiacum is attenuant and aperient. It is excellent in many chronick cases, and was once famous for curing the venereal disease, which it still does singly in warmer climates, but with us we find it insufficient. We have a resin of it, improperly called gum *guaiacum*. *Hill.*

GUAIACUM, in botany, lignum vitæ, or pockwood; a genus of the monogynia order, and decandria class of plants; natural order fourteenth,

gruinales: CAL. quinquefid and unequal; the petals five, and inserted into the calyx: CAPS. angulated, and trilocular or quinquelocular.

1. G. Afrum, with many blunt-pointed leaves, is a native of the Cape of Good Hope. The plants retain their leaves all the year, but have never yet flowered in this country. This species is to be propagated by layers, and will live all the winter in a good green-house.

2. G. officinale, the common lignum vitæ used in medicine, is a native of the West India Islands, and the warmer parts of America. There it becomes a large tree, having a hard, brittle, brownish bark, not very thick. The wood is firm, solid, ponderous, very resinous, of a blackish yellow color in the middle, and of a hot aromatic taste. The smaller branches have an ash-colored bark, and are garnished with leaves divided by pairs of a bright green color. The flowers are produced in clusters at the end of the branches, and are composed of oval concave petals of a fine blue color. This species can only be propagated by seeds, which must be procured from the countries where it generally grows. They must be sown fresh in pots, and plunged into a good hot-bed, where they will come up in six or eight weeks. While young they may be kept in a hot-bed of tan bark under a frame during summer; but in autumn they must be removed into the bark stove, where they should constantly remain. The wood of this species is of great use both in medicine and in the mechanical arts. It is so compact and heavy as to sink in water. The outer part is often of a pale yellowish color; but the heart is blacker, or of a deep brown. Sometimes it is marbled with different colors. It is so hard as to break the tools used in felling it; and is therefore seldom used as fire wood, but is of great use to the sugar planters for making wheels and cogs to the mills. It is also often made into bowls, mortars, and other utensils. It is brought over to Britain in large pieces of 4 cwt. or 5 cwt. each; and, from its hardness and beauty, is in great demand for various articles of turnery ware. The wood, gum, bark, fruit, and even the flowers of this tree, possess medicinal virtues; but only the first three, particularly the wood and resin, are now in general use in Europe. The wood has little or no smell, except when heated, or while rasping, and then a slight aromatic one is perceived. When chewed it impresses a mild acrimony, biting the palate and fauces. Its pungency resides in its resinous matter, which it gives out in some degree to water by boiling, but spirit extracts it wholly. Of the bark there are two kinds; one smooth, the other unequal on the surface: they are both weaker than the wood; though, in a recent state, they are strongly cathartic. The gum, or resin, is obtained by wounding the bark in different parts of the tree, or by what has been called jagging. It exudes copiously from the wounds, though gradually; and when a quantity is found accumulated upon the several wounded trees, hardened by exposure to the sun, it is gathered and packed in small kegs for exportation. This substance is of a friable texture, of a deep greenish color, and sometimes of a reddish hue; it has a pungent acrid taste, but little or no smell unless heated. It differs from resins in its habitudes with nitric acid, as Mr. Hatchett first showed. Its specific gravity is 1·229. It is transparent, and breaks with a resinous fracture. Its odor is not disagreeable, but when a very little of its powder, mixed with water, is swallowed, it excites a very unpleasant burning sensation in the fauces and stomach. Heat fuses it, with the exhalation of a somewhat fragrant smell.

Water dissolves a certain portion of it, acquiring a brownish tinge, and sweetish taste. The soluble matter is left when the water is evaporated. It constitutes ninè per cent. of the whole, and resembles what some chemists call extractive. Guaiacum is very soluble in alcohol. This solution, which is brown colored, is decomposed by water. Aqueous chlorine throws down a pale blue precipitate from it. Guaiacum dissolves readily in alkaline lies, and in sulphuric acid; and in the nitric with effervescence. From the solution in the last liquid, oxalic acid may be procured by evaporation, but no artificial tannin can be obtained, as from the action of nitric acid on the other resins.

The tree also yields a spontaneous exudation from the bark, which is called the native gum, and is brought to us in small irregular pieces of a bright semipellucid appearance; it differs from the former in being much purer. In the choice of the wood, that which is the freshest, most ponderous, and darkest colored, is the best; the largest pieces are to be preferred; and the best method is to rasp them as wanted, for the finer parts are apt to exhale when the raspings or chips are kept. In choosing the resin prefer those pieces which have slips of the bark adhering to them, and that easily separate therefrom by a quick blow. The resin is sometimes mixed with the gum of the manchineal tree; but this is easily detected by dissolving a little in spirit of wine or rum. The true gum imparts a whitish or milky tinge, but the manchineal gives a greenish cast. Mouch advises a few drops of spirit, nitri dulc. to be added to the spirituous solution, and then to be diluted with water, by which the gum will be precipitated in a blue powder; but the adulteration will appear floating in white striæ, &c. Guaiacum was first introduced into Europe as a remedy for the venereal disease in 1508. It was attended with great success in slight affections, but failed where the disease was deep rooted; and was at length superseded by mercury, to which it now only serves occasionally as an adjuvant in the decoctum lignorum, of which guaiacum is the chief ingredient. It is esteemed a warm stimulating medicine; strengthening the stomach and other viscera, and remarkably promoting the urinary and cuticular discharges; hence, in cutaneous defedations, and other disorders proceeding from obstructions of the excretory glands, and where sluggish serous humors abound, it is useful; rheumatic and other pains have often been relieved by it. It is also laxative. The watery extract, kept in the shops, proves considerably weaker than that made with spirit. This last extract is of the same quality with the native resin, and differs from that brought to us only in being purer. The gum or extracts are given from a few grains to a scruple

or half a drachm, which last dose proves for the most part considerably purgative. The officinal preparations of guaiacum are an extract of the wood, a solution of the gum in rectified spirit of wine, a solution of volatile spirit, and an empyreumatic oil distilled from the wood. The resin dissolved in rum, or combined with water, by mucilage or the yolk of an egg, or in form of the volatile tincture or elixir, is employed in gout and chronic rheumatism. The tincture or elixir has been given to the extent of half an ounce twice a day, and is sometimes usefully combined with laudanum.

3. G. sanctum, with many pairs of obtuse lobes, has many small lobes placed along the mid rib by pairs of a darker green color than those of the foregoing sort. The flowers are produced in loose bunches towards the end of the branches, and are of a fine blue color, with petals fringed on the edges. This species is also a native of the West India Islands, where it is called bastard lignum vitæ. It may be propagated like the last.

GUAILAS, or Huailas, a province of Peru, South America, bounded north-east and east by the province of Conchucos, south-east and south by that of Caxatambo, and west by that of Santa. It is forty-five miles long from north to south, and sixteen wide. In the middle the temperature is mild, and at either side cold, especially towards the east or mountainous part. It is watered by several streamlets. These, being connected, form the Santa Fe. This province is fertile in wheat and other grain: the whole year round there are crops of wheat, and they are putting the grain into the ground at one place, while it is ripe and ready to cut at another. It is the same with the various fruits. The province contains mines of silver, alum, and copper, and some gold.

GUAIRA, a town of South America, in the government of the Caraccas, and province of Venezuela, founded in 1588. It has a port, and is defended by a castle. Here a heavy surge generally rolls in from the ocean, which contributes greatly to augment its inconveniences, and the sand, being raised from the bottom, is carried along by the current, and deposited upon the anchors, so that in about a month's time it becomes impossible to hoist them. The worm also, which is common in all the ports of this part of South America, and which, in the course of a few months, eats into the ships' bottoms, so as to render them unfit for use, is peculiarly fatal here. The town of Guaira is defended by batteries, and so surrounded with mountains, that there is no visible horizon but that formed by the sea to the south; and the inhabitants frequently receive injury from the falling stones. The situation of the place accounts also for the intense heat: the thermometer of Reaumur constantly rising to 25° and 28°. The whole place was laid in ruins by an earthquake, 26th March 1812, which only lasted two minutes. The rocks and mountains were rent asunder, and hundreds of the inhabitants were seen mixed with the heaps of rubbish, and imploring assistance from their fellow citizens, who were all the while prostrating themselves before images. Guaira was attacked by the English, without success, in 1739, and 1743. It is seven miles north of the city of Caraccas, and contains 6000 inhabitants. Long. 67° 2′ W., lat. 10° 48′ N.

GUALIOR, or Gualeor, a celebrated fortress of Hindostan, in the province of Agra. By the nearest route it is upwards of 800 miles from Calcutta. In the ancient division of the empire it is classed in the Soubah of Agra, and is often mentioned in history. In the year 1008, and during the two following centuries, it was thrice reduced by famine. It must, in all ages, have been deemed a military post of consequence, both from its situation in respect to the capital, and from the peculiarity of its site. It stands on the principal road from Agra to Malwa, Guzerat, and the Deccan; near the place where it enters the hilly tract which advances from Bundelcund Malwa, and Agimere, along the banks of the Jumnah. Its palace was used as a state prison as early as 1317, and continued to be such until the downfal of the empire. Gualeor then appears to have fallen to the lot of a rajah of the Jat tribe; who assumed the government of the district in which it is situated, under the title of rana of Gohud. Since that period it has changed masters more than once; the Mahrattas having sometimes possessed it, and at other times the rana: but the means of transfer were always either famine or treachery. Gualeor was in the possession of Madajee Scindia, a Mahratta chief, in 1779, when the Bengal government undertook to siege it for the rana of Gohud. Captain Scott, then Persian interpreter to major Popham, in a letter to his brother, major John Scott, thus describes the fort and the occasion of its capture:—'The fortress of Gualeor stands on a vast rock of about four miles in length, but narrow, and of unequal breadth, and nearly flat at the top. The sides are so steep as to appear almost perpendicular in every part; for, where it was not naturally so, it had been scraped away; and the height from the plain below is from 200 to 300 feet. The rampart conforms to the edge of the precipice all round; and the only entrance to it is by steps running up the side of the rock, defended on the side next the country by a wall and bastions, and farther guarded by seven stone gateways, at certain distances from each other. The area within is full of noble buildings, reservoirs of water, wells, and cultivated lands; so that it is really a little district of itself. At the north-west foot of the mountain is the town, pretty large, and well built; the houses all of stone. To have besieged this place would be vain, for nothing but a surprise or blockade could have carried it. A tribe of banditti from the district of the rana had been accustomed to rob about this town, and once in the dead of night had climbed up the rock and got into the fort. This intelligence they had communicated to the rana, who often thought of availing himself of it, but was fearful of undertaking an enterprise of such moment with his own troops. At length he informed major Popham of it; who sent a party of the robbers to conduct some of his own spies to the spot.' They accordingly climbed up in the night of the 3d of August, found the guards asleep, and thus, meeting with little re-

sistance, in the space of two hours this important and astonishing fortress was completely reduced, with the loss of only one man killed, and twenty wounded. On the side of the enemy Bapojee, the governor, was killed, and most of the principal officers wounded. Thus fell, on the 4th of August 1780, the strongest fortress in Hindostan, garrisoned by a chosen body of 1200 men; and which, before the capture of it by the British, was pronounced impregnable. In 1783 Madajee Scindia besieged this fortress, then possessed by the rana of Gohud, with an army of 70,000 men, and effected the reduction by the treachery of one of the rana's officers, who formed the plan of admission of a party of Scindia's troops: these were immediately supported by another party, who attacked an opposite quarter, and got admission also. It was retaken by the British in 1805, but afterwards ceded to the Mahrattas. Long. 78° 26′ E., lat. 26° 14′ N.

GUAM, or GUAHAN, the largest of the Ladrone Islands. It is about 120 miles in circumference; and has a town built in the European style, with a regular fort and church. The air is excellent, the water good, and the garden stuffs and fruits, the flocks of buffaloes, goats, hogs, and all kinds of poultry innumerable. When first discovered by Magellan in 1521, with the other eight principal islands that lie north of it, they were all crowded with inhabitants, but afforded no refreshment to navigators, except fish, bananas, cocoa-nuts, and bread fruit; and even these could not be procured but by force, amidst the showers of arrows and lances of the natives. The Spaniards carried thither from America the first stock of cattle, fowls, plants, seeds, fruits, and garden stuffs, which are all now found in such abundance. See LADRONE. Guam alone contained at this time upon its coasts more than 20,000 people. These fierce islanders, after having long defended, by cruel wars, the right of living like wild beasts, being at last obliged to yield to the Spanish arms, took the resolution of administering potions to their women to procure abortions. This desperate resolution was persisted in with so much obstinacy in the nine Ladrone islands, that their population, which at the time of the discovery consisted of more than 60,000 souls, did not lately exceed 900. About fifty years ago the remains of the original natives were collected and established in the island of Guam. The principal town and settlement, Agana, is situated about twelve miles north-east of the landing place, on the shore, at the foot of some hills, in a beautiful well-watered country. There are smaller settlements of Indians round the island, on the shore. The centre is uncleared. The trees are fit for building houses and boats, and the forests very thick. Among the indigenous trees, the most remarkable are the cocoa-nut and bread-fruit. The woods also abound with guavas, ananas, plantains, citrons, lemons, oranges, the small dwarf thorny china orange with red fruit, and caper bush. As many of these trees are constantly in flower, they perfume the air with the most agreeable smells, and delight the eye with the richest colors. The rivers of Guam, which are either rivulets or torrents, abound with excellent fish: turtle grow here as large as in the island of Ascension, but are not eaten either by the Indians or Spaniards. The crops cultivated are rice, maize, indigo, cotton, cocoa, and sugar-canes. The maize is of astonishing fertility. The gardens are stored with mangoes and pine-apples. The former is one of the finest fruits imaginable. Horses have been brought to Guam from Manilla, and asses and mules from Acapulco. The land rises gradually from the shore towards the centre by a gentle acclivity, but is not very mountainous. The indigenous inhabitants are such as they were described by Magellan; of short stature, rather ugly, black, and in general dirty, though much in the water. The women are handsome, well made, and of a reddish color. Both sexes have long hair. They have become gentle, honest, and hospitable. The men drink freely of the wine of the cocoa-nut. They are fond of music, dancing, and cock-fighting.

GUAMA, a large river of the province of Para, Brasil, which enters an arm of the Amazons at the town of Para. There is a river of the same name to the north of Lima.

GUAMACHUCO, a province of Peru, bounded east by the province of Caxamarquilla, north-east by that of Chochapoyas, north by Caxamarca, north-west and west by Truxillo, and south by Conchucos. It is thirty leagues long, and ten wide, and for the most part cold; but is fruitful in maize, wheat, barley, &c. Here are also all sorts of cattle, particularly sheep, from the wool of which cloth is manufactured. Population 11,000. The capital is of the same name.

GUAMALIES, or HUAMALIES, a province of Peru, bounded north by the province of Pataz, east by the Andes, south-east by the province of Guanuco, south by that of Tarma, south-west by Caxatambo, and north-west by Conchucos. It is an extensive valley about 250 miles long from north to south, and from forty to ninety broad, through which runs the Amazon, rising about eighteen miles beyond its southern boundary. Towards the south the temperature is cold; but to the north the heat is intense. Several mines of quicksilver have been discovered in this province.

GUAMANGA, or HUAMANGA, a province and town of Peru, bounded north and north-east by the province of Guanta, south by that of Vilcas Huaman, and west by that of Castro-Vireina. It is high, and of cold temperature; yet it abounds in pasture and wheat. There are also some rich silver mines, which are, however, overflowed. The town was founded by Pizarro in an extensive and beautiful plain, watered by a river rising in the mountains. Its buildings are all of stone, and have gardens and orchards annexed. The public places and squares are magnificent, and the entrances are adorned with rows of trees. There is a university and a seminary enjoying a good revenue. Besides its present name, it has also the name of San Juan de la Victoria, in memory of the retreat of Manco, the inca, after he had well nigh conquered the Spaniards; also that of San Juan de la Frontera; but its most common name is Gua-

manga: 188 miles south-east of Lima, and 176 north-west from Cuzco.

GUANARE, a town of the Caraccas, in the province of Varinas, situated on a river of the same name. The streets are straight and wide, and the houses neat. There is an hospital, with a moderate revenue, and a large handsome parish church. It owes a part of its splendor to possessing an image of our lady of Comorato, to whose shrine numerous pilgrimages are made. Guanare has, towards the west, the most fertile lands, possessing immense herds of oxen and mules. They were formerly in the habit of raising tobacco of a very good quality. Population 12,300: 193 miles S.S.W. of Caraccas, and sixty-four miles south-east of Truxillo. Long. 66° 55′ 15″ W., lat. 8° 14′ N. The river runs into the Apure.

GUANAXUATO, one of the intendancies of Mexico, wholly situated on the ridge of the Cordillera of Anahuac. Its capital, founded in 1554, is of the same name, and stands 6836 feet above the level of the sea. The ports and mines of the neighbourhood contain 70,000 inhabitants. The length of the intendancy, from the lake of Chapala to the north-east of San Felipe, is fifty-two leagues; and its breadth from the Villa de Leon to Celaya thirty-one leagues. The most elevated point of this mountainous country was found, by Humboldt, to be 9235 feet above the level of the sea. The cultivation of this fine province is almost wholly to be ascribed to the Europeans, who arrived there in the fifteenth century. The mines are very productive. From 1796 to 1803 they yielded nearly 40,000,000 of dollars, or £5,000,000 sterling annually. Humboldt estimates the surface of this province at 911 square leagues, and the population at 517,300 persons.

GUANCABELICA, or GUANCAVELICA, a town of Peru, the capital of the province of Angaraez. It is situated in a broken glen, formed by the Andes, and is so elevated, that the temperature is extremely cold, and the weather always changing. The mountains in the vicinity are rich in gold and silver ores. But it is chiefly remarkable for a mine of quicksilver. This mine yielded an immense produce; but, not being worked in a proper and regular manner, the pit fell in; and they are compelled now to dig in places less abundant in ore.

GUANO is a yellowish-brown eartny substance of a peculiar kind, without taste and of a smell resembling that of Castoreum. This substance, which for centuries has been used by the Peruvians as a manure, is the production of some neighbouring rocky islands in the South Sea, from whence large quantities are annually brought to the continent of America. The guano, says M. Humboldt, is found not only in the Chiche Islands, near Piseo, but it exists also on the parts of the coast, and its isles situated more to the south, at Ilo, Iza, and Arica.

The strata in which the guano is disposed are from fifty to sixty feet in thickness, and they are worked in the same manner as the iron ochre mines. It is an excellent manure for the Indian corn or maize; but, if too much of it be applied, the root is burnt and destroyed by it.

When exposed to the fire, the brownish-yellow color of the guano is converted into black; it gives out white fumes, and the smell of empyreumatic ammonia. Water dissolves part of it, becomes thereby of a reddish color, and acquires an acid taste. Potassa dissolves much more of it than water; the solution is of a deep brown color, and is produced under an abundant development of ammonia. The result of the chemical analysis made by Fourcroy and Vauquelin is, that the principal constituent part is concrete uric acid.

Klaproth obtained nearly the same results as the French chemists; his experiments prove that the essential component parts of the guano, exclusive of the admixed sand, are ammoniacal uric acid, phosphate of lime, oxalate of lime, and a residuum of animal colla, or similar animal inflammable component part. The oxalic acid, however, Klaproth supposes not to be an original constituent part of the guano, but the product of a long continued action of the atmospheric oxygen of the uric acid; an opinion founded on his own experience respecting the easy conversion of uric into oxalic acid, by the application of nitric and oxygenated muriatic acid. The proportion of the constituent parts is as follows:—ammoniacal uric acid 16; phosphate of lime 10; oxalate of lime 12·75; silica 4; muriate of soda 0·50; sandy admixture 28; water, inflammable animal remains, and loss, 28·75.

GUANTA, a province of Peru, bounded north and north-west by the province of Xauxa, north-east and east by the Andes, south and south-west by the provinces of Anganaes, Guamanga, and Castro Vireyna; on the south-east it touches upon the provinces of Anduhnailas and Vilcas-huaman. It extends in length sixty leagues from north-west to south-east, and is forty leagues broad; consisting chiefly of high lands and hot valleys, which yield fruits of all kinds, sugar, and cocoa. Population 10,000. Its capital is of the same name. The gold, silver, copper, and lead mines, which abound in this country, are neglected, the pits not being sunk to a sufficient depth. Some of the ores yield from nine to ten marks, and others twenty-two marks of silver of eight ounces in every 50 cwt. Fifty-three miles west from Guamanga, and 140 south-east from Lima. Long. 74° 51′ W., lat. 12° 56′ S.

GUANUCO, or HUANUCO, a town and province of Peru, bounded north and east by the desert, south-east and south by the province of Tarma, and west by the south part of the province of Guamalies. The town stands in the royal road of the incas; and every where are to be seen the ruins of some of their superb edifices. Long. 75° 36′ W., lat. 10° 6′ S.

GUAPORE, a large river of Brasil, which, according to Mr. Mawe, has its rise in the province of Matto Grosso, in lat. 14° 42′ S. Sixty miles north-east of Villa Bella; and, running north 360 miles, flows into the Arinos, and their conjunct streams form the great river Tapayos.

GUARANTEE, *n. s.* } Fr. *garant*, *garan-*
GUARANTY, *n. s.* } *tir*. A power who undertakes to see stipulations performed.

God, the great *guarantee* for the peace of mankind, where laws cannot secure it, may think it the concern of his providence. *South.*

A prince distinguished by being a patron of Protestants, and *guarantee* of the Westphalian treaty. *Addison on the War.*

An oath is a promise made to God, and God is our superior, superior to kings. And he is also the *guarantee* and avenger of all breach of faith and injustice. *Lesley.*

GUARAPICHE, a river of South America, in Cumana, which rises in the eastern declivity of mount Brigantin, and running in a winding course through mountains and unknown countries, enters the gulf of Paria, between the point of Paria and the mouth of the Orinoco, in lat. 10° 1′ N. It receives the waters of numerous and considerable streams.

GUARD′, *v. a.*, *v. n.* & *n. s.*
GUARD′AGE, *n. s.*
GUARD′ER, *n. s.*
GUARD′IAN, *n. s.* & *adj.*
GUARD′IANSHIP, *n. s.*
GUARD′LESS, *adj.*
GUARD′SHIP, *n. s.*

Ital. *guardia*; Fr. *garder*, from our word ward, the *w* being changed by the French into *g*; as Galles for Wales. See WARD. To watch over and protect; to defend; to preserve; to provide against objections; to adorn; to be in a state of caution. A guard is a limited number of men whose business it is to watch by way of prevention; a part of the hilt of a sword. Guardage is a state of wardship. Guardian is one that has the care of an orphan; a repository or storehouse. Guardship is a king's ship to guard the coast.

The *guard* bare them, and brought them back into the guard chamber. 1 *Kings* xiv. 28.

Give him a livery
More *guarded* than his fellows. *Shakspeare.*

See a fellow
In a long motley, *guarded* with yellow. *Id.*

Where is Duncan's body?
—Carried to Colmeskill,
The sacred storehouse of his predecessors,
And *guardian* of their bones. *Id.*

I am sorry for her, as I have just cause, being her uncle and her *guardian*. *Id. Much Ado About Nothing.*

I gave you all,
Made you my *guardians*, my depositaries;
But kept a reservation to be followed
With such a number. *Id. King Lear.*

The great alteration which he made in the state ecclesiastical, caused him to stand upon his *guard* at home. *Davies.*

And since love ne'er will from me flee,
A mistress moderately fair,
And good as *guardian* angels are,
Only beloved, and loving me! *Cowley.*

They missed courts, *guards*, a gay and numerous train,
Our judges, like our laws, were rude and plain. *Id.*

Up into heaven, from paradise, in haste
The' angelick *guards* ascended, mute, and sad
For man. *Milton's Paradise Lost.*

That of four seas dominion, and of all their *guarding*,
No token should appear but a poor copper farthing. *Marvell.*

Naked the graces *guarded* you from all
Dangers abroad, and now your thunder shall. *Waller.*

So on the *guardless* herd, their keeper slain,
Rushes a tyger in the Libyan plain. *Id.*

With lifted hands, and gazing eyes,
His *guards* behold him soaring through the skies. *Dryden.*

Your power you never use, but for defence,
To *guard* your own or other's innocence. *Id.*

Fixed on defence, the Trojans are not slow
To *guard* their shore from an expected foe. *Id.*

Now he stood collected and prepared,
For malice and revenge had put him on his *guard*. *Id.*

My charming patroness protects me unseen, like my *guardian* angel; and shuns my gratitude like a fairy, who is bountiful by stealth, and conceals the giver when she bestows the gift. *Id.*

Temerity puts a man off his *guard*. *L'Estrange.*

It is wisdom to keep ourselves upon a *guard*. *Id.*

The curate stretched his patent for the cure of souls, to a kind of tutelary *guardianship* over goods and chattels. *Id.*

He must be trusted to his own conduct, since there cannot always be a *guard* upon him, except what you put into his own mind by good principles. *Locke.*

Others are cooped in close by the strict *guards* of those whose interest it is to keep them ignorant. *Id.*

One would take care to *guard* one's self against this particular imperfection, because it is that which our nature very strongly inclines us to. *Addison.*

The port of Genoa is very ill *guarded* against the storms. *Id. on Italy.*

A rich land, *guardless* and undefended, must needs have been a double incitement. *South.*

Hocus, with two other of the *guardians*, thought it their duty to take care of the interest of the three girls. *Arbuthnot.*

Thus shall mankind his *guardian* care engage,
The promised father of the future age. *Pope.*

Mean while Minerva, in her *guardian* care,
Shoots from the starry vaults through fields of air. *Id.*

They, usurping arbitrary power, had their *guards* and spies, after the practice of tyrants. *Swift.*

Theseus was the first who established the popular state in Athens, assigning to himself the *guardianship* of the laws, and chief commands in war. *Id.*

How blessed am I, by such a man led!
Under whose wise and careful *guardship*
I now despise fatigue and hardship. *Id.*

To *guard* against such mistakes, it is necessary to acquaint ourselves a little with words. *Watts.*

Unless corruption first deject the pride
And *guardian* vigour of the freeborn soul,
All crude attempts of violence are in vain. *Thomson.*

Man's caution often into danger turns,
And his *guard* falling crushes him to death. *Young's Night Thoughts.*

If, ye powers divine!
Ye mark the movements of this nether world,
And bring them to account, crush, crush those vipers,
Who, singled out by a community
To *guard* their rights, shall for a gnash of air
Or paltry office sell 'em to the foe. *Miller's Mahomet.*

The lost in all things differing from the other,
Fall from an hill, and close together go,
Embracing as they run; each with his brother
Guarded with double trenches sure they flow. *Fletcher's Purple Island.*

The *guards* mechanically formed in ranks,
Playing at beat of drum their martial pranks,

Shouldering and standing as if struck to stone,
While condescending majesty looks on. *Cowper.*

A goodly sinecure no doubt! but made
More easy by the absence of all men
Except his majesty, who with her aid,
And *guards*, and bolts, and now and then
A slight example, just to cast a shade
Along the rest, contrived to keep his den
Of beauties, cool as an Italian convent,
Where all the passions have alas but one vent.
Byron.

Secure in *guarded* coldness, he had mixed
Again in fancied safety with his kind,
And deemed his spirit now so firmly fixed
And sheathed with an invulnerable mind,
That if no joy, no sorrow lurked behind.
Byron. Childe Harold.

GUARD, in the military art, is a duty performed by a body of men, to secure an army or place from being surprised by an enemy. In garrison the guards are relieved every day: hence every soldier mounts guard once every day in time of peace, and much oftener in time of war. See HONORS.

GUARD, ADVANCED, or van-guard. See ADVANCE-GUARD.

Artillery GUARD is a detachment from the army to secure the artillery when in the field. Their corps de garde is in the front of the park of artillery, and their sentries are dispersed round the same. This is generally a forty-eight hours guard; and upon a march this guard marches in the front and rear of artillery, and must be sure to leave nothing behind. If a gun or waggon breaks down, the officer that commands the guard is to leave a sufficient number of men to assist the gunners and matrosses in raising it.

Artillery quarter GUARD is frequently a non-commissioned officer's guard from the royal regiment of artillery, whose corps de garde is always in the front of their encampment.

Baggage GUARD is always an officer's guard, who has the care of the baggage on a march. The waggons should be numbered by companies, and follow one another regularly; vigilance and attention in the passage of hollow ways, woods, and thickets, must be strictly observed by this guard.

Forage GUARD, a detachment sent out to secure the foragers, and who are posted at all places, where either the enemy's party may come to disturb the foragers, or where they may spread too near the enemy, so as to be in danger of being taken. It consists both of horse and foot, who must remain on their posts till the foragers are all come off the ground.

Grand GUARD, three or four squadrons of horse, commanded by a field officer, posted at about a mile or a mile and a half from the camp, on the right and left wings, towards the enemy, for the better security of the camp.

Main GUARD is that from which all other guards are detached. Those who are mounting guard assemble at their respective captain's quarters, and march from thence to the parade in good order; where, after the whole guard is drawn up, the small guards are detached to their respective posts: then the subalterns throw lots for their guards, who are all under the command of the captain of the main guard. This guard mounts in garrison at different hours, according to the pleasure of the governor.

Piquet GUARD, a number of horse and foot, always in readiness in case of an alarm: the horses are generally saddled, and the riders booted. The foot draw up at the head of the battalion, frequently at the beating of the tat-too; but afterwards return to their tents, where they hold themselves in readiness to march. This guard is to resist in case of an attack, until the army get ready.

Quarter GUARD is a small guard commanded by a subaltern officer, posted in the front of each battalion, 222 feet before the front of the regiment.

Rear GUARD, that part of the army which brings up the rear on a march, generally composed of all the old grand guards of the camp. The rear-guard of a party is often eight or ten horse, about 500 paces behind. Hence the advance-guard, going out upon a party, form the rear-guard in their retreat. Rear-guard is also a corporal's guard placed in the rear of a regiment, to keep good order.

Standard GUARD, a small guard under a corporal, out of each regiment of horse, who mount on foot in the front of each regiment, at the distance of twenty feet from the streets, opposite the main street.

Trench GUARD only mounts in the time of a siege, and sometimes consists of three, four, or six battalions, according to the importance of the siege. This guard must oppose the besieged when they sally out, protect the workmen, &c.

GUARDS also imply the troops kept to guard the king's person, and consist both of horse and foot.

Foot GUARDS are regiments of foot appointed for the guard of his majesty and his palace. There are three regiments of them, numerically titled. They were raised in 1660; and the command of the first given to colonel Russel, that of the second to general Monk, and the third to the earl of Linlithgow. The second is always called the Coldstream, from a place named Coldstream, a small market town in Berwickshire, where the men were first raised. This regiment in point of standing is older than the first, having been raised sooner, and commanded by general Monk, from whom it originally was called Monk's regiment or corps; and in compliment to whom it was made one of the three royal regiments by Charles II.

Horse-grenadier GUARDS were divided into two troops, called the first and second troops of horse-grenadier guards. The first troop was raised in the year 1693, and the command given to lieutenant-general Cholmondeley: the second in 1702 and the command given to lord Forbes. This corps was reduced in 1788, and the officers, &c., were allowed to retire upon full pay.

Horse GUARDS, in Britain, are gentlemen chosen for their bravery, to be entrusted with the guard of the king's person; and were formerly divided into four troops named numerically. But the four troops are now turned into two regiments of life-guards. Although the life-guards generally do duty about the metropolis, it must be recollected, that they were not raised for that specific purpose only.

They are enlisted for general service, like the men of the line or foot-guards, and no stipulation of any sort is made with them.

With respect to rank, in addition to what has already been said on that subject, it is necessary to state, that the majors in the life-guards rank as lieutenant-colonels, and, by his majesty's order, they can only exchange with lieutenant-colonels. The lieutenant-colonels rank as full colonels, and cannot exchange with any one under that rank. For the like reason that rank would not be obtained by an exchange; a major of the life-guards cannot exchange with a major in the line, nor a lieutenant-colonel with one of the same rank. This corps distinguished itself at the memorable battle of Waterloo in 1815. They are now made cuirassiers.

Yeomen of the GUARD were first raised by Henry VII. in 1485. They were a kind of pompous foot-guards to the king's person; and are generally called the Beef-Eaters. They were anciently 250 men of the first rank under gentry; and of larger stature than ordinary, each being required to be six feet high. At present there are but 100 in constant duty, and seventy more not on duty; and when any one of the 100 dies his place is supplied out of the seventy. They go dressed after the manner of king Henry VIII.'s time. Their first commander or captain was the earl of Oxford, and their pay is 2*s.* 6*d.* per day.

The Scots GUARDS, a celebrated band, which once formed the first company of the ancient gardes du corps of France.

GUARD, in fencing and the broad sword exercise. See FENCING and SWORD EXERCISE.

GUARD-BOAT, a boat appointed to row the rounds amongst the ships of war which are laid up in any harbour, &c., to observe that their officers keep a good looking-out, calling to the guard-boat as she passes, and not suffering her crew to come on board without having previously communicated the watch-word of the night.

GUARDIAN, in law, signifies one who has the custody and education of such persons as have not sufficient discretion to take care of themselves and their own affairs, as children and ideots. The guardian's business is to take the profits of the minor's lands to his use, and to account for the same; to sell all moveables within a reasonable time, and to convert them into land or money, unless the minor is near of age, and may want such things himself; and to pay interest for the money in his hands, that might have been so placed out; in which case it will be presumed that the guardian made use of it himself. He is to sustain the lands of the heir, without making destruction of any thing thereon, and to keep them safely for him: if he commits waste on the lands, it is a forfeiture of the guardianship; 3 Edward I. And where persons, as guardians, hold over any land, without the consent of the person who is next entitled, they shall be adjudged trespassers, and shall be accountable: 6 Ann. cap. xviii.

GUARDIAN OF THE CINQUE PORTS. See WARDEN and CINQUE PORTS.

GUARDIAN OF THE SPIRITUALITIES, he to whom the spiritual jurisdiction of any diocese is committed, during the vacancy of the see. He may be either guardian in law, or jure magistratûs, as the archbishop is of any diocese within his province; or guardian by delegation, as he whom the archbishop or vicar general doth for the time depute.

GUARDIARA, a river of Spain which rises in New Castile, runs through the provinces of La Mancha and Estremadura; then enters Portugal a few miles west of Badajoz, and, after running through the province of Alentejo, falls into the Atlantic between Ayamonte and Castromarin.

A GUARD-SHIP is a vessel of war appointed to superintend the marine in a harbour or river, and to see that the ships which are not commissioned have their proper watchward kept duly, by sending her guard-boats around them every night. She is also to receive seamen who are impressed in the time of war.

GUAREA, in botany, a genus of the monogynia order, and octandria class of plants: CAL. quadrifid: the petals four; the nectarium cylindric, having the antheræ in its mouth: CAPS. quadrilocular and quadrivalvular: SEEDS solitary. Species one only, a West Indian tree with a strong musky odor.

GUARINI (Guarino), a native of Verona, descended of an illustrious family, celebrated as having been the first who taught Greek after the restoration of letters. He had acquired their language at Constantinople. He died in 1460.

GUARINI (John Baptist), a celebrated Italian poet, grandson to the preceding, born at Ferrara, in 1537. He was secretary to Alphonso duke of Ferrara, who entrusted him with several important commissions. After the death of that prince he was successively secretary to Vincent de Gonzaga, to Ferdinand de Medicis, grand duke of Tuscany, and to Francis Maria de Feltri duke of Urbino. He was well acquainted with polite literature; and acquired lasting reputation by his Italian poems, especially by his Pastor Fido, the most admired of all his works, and of which there have been innumerable editions and translations. He died in 1612.

GUATIMALA, one of the governments into which the Spanish possessions in America were formerly divided. It extended on the narrow part of the continent of America, from the provinces of Oaraca and Vera Cruz, in Mexico, southward to Veragua, on the isthmus of Darien, and includes various districts but little known. According to another division of this country, the following are the provinces of which it is composed, namely, Tabasco, Chiapa, Guatimala, Yucatan, Honduras, Nicaragua, and Vera Paz. Guatimala is extremely fertile, and well peopled, and so much the better cultivated, as the soil, convulsed with volcanoes, contains almost no metallic mines. Its general appearance is fertile in the extreme; and it produces abundantly corn, cochineal, honey, wax, cotton, the sugar-cane, indigo, maize, pimento, and chocolate. The farming districts produce cattle and sheep. The whole country is mountainous; but of the particular ridges little is known. On the western shore, from Oaxaca and Veragua, the country is dreadfully subject to the most tremendous earthquakes,

which have at times involved whole cities in ruins, and exterminated complete tribes. No fewer than twenty volcanoes are known to exist here which are in constant activity. The western coast is in general, as in most other parts of America, the healthiest. In some parts the temperature is exceedingly hot and moist. The rains last from April to September, when violent storms are frequent.

GUATIMALA PROPER, a province of the above government, extends about 130 leagues along the coast of the Pacific Ocean, and is in some places from thirty to forty in breadth. It is bounded on the north-east by Vera Paz and Chiapa, on the east by Honduras, on the south-west by the Pacific Ocean, on the south-east by Nicaragua, and on the north and west by Oaxaca. The country is for the most part mountainous, and covered with forests of fine wood. The valleys are fertile, and produce the most delicate fruits. It also abounds in corn, cattle, indigo, and cochineal.

GUATIMALA, SANTIAGO DE, the capital of the above province, was founded in 1524. At first it was founded on the declivity of a mountain, at whose summit was a volcano, in a valley of three miles in breadth, and was then called St Jago. It contained about 7000 families: in this situation the unfortunate city was, in the year 1751, overwhelmed by an earthquake, and by the matter from the volcano. Another and a more tremendous convulsion again destroyed this place in 1775, the greater part of the inhabitants being buried in the ruins. The city was again rebuilt on the spot where it now stands, which is twenty-five miles to the south of the old town. It is a magnificent place. Population 19,000.

GUAVA, in botany. See PSIDIUM.

GUAYAQUIL, is the largest and most important district of Quito, Colombia: it begins at Cape Passado, 21′ S. of the equinoctial line, and, stretching south, includes the island of Puna; being terminated by Piura in Peru, and mostly a continued plain. The river Guayaquil is not only the largest but the most important of all the streams in the jurisdiction. It rises in the Andes, and, pursuing a serpentine course, flows into the Pacific in the Bay of Puna. The torrents, which flow in all directions from the mountains, contribute to swell this river, and it inundates the country to a great extent. Its mouth is about three miles wide at Isla Verde; and at Guayaquil still broader. The distance on it from this city to the custom-house of Babahoyo is twenty-four leagues and a half, and it is navigable four leagues further. The tides reach as far as the custom-house in summer, but in winter the current is so strong, that the tides are often imperceptible. The mouth of the river is so full of shifting sands, that the passage of large vessels is rendered very dangerous. Its banks are decorated with country-seats, and cottages inhabited by fishermen. The other large rivers are those called Yaguache, Baba, and Daule, along the banks of which most of the Indians have formed their habitations.

During the winter months this district is infested by insects and vermin, and is subject to dreadful storms and inundations, which oblige the farmers to send their cattle to the Andes. In the rainy season, fevers, dysenteries, diarrhœas, the black vomit or yellow fever, and other disorders, are common, and carry off great numbers of people. At this period, also, snakes, scorpions, vipers, and scolopendras, find their way into the houses, and are sometimes even found in the beds. The boba, a serpent of immense size, is also common. These, with swarms of musquitoes, and other venomous insects, render the towns very unpleasant during this season; and alligators, of an enormous size, cause the rivers and flooded places to be very dangerous. The inundations spread to such an extent, in some parts, that Babahoyo, one of the departments, is converted into a large lake, and the villages, which are always on heights, can be approached only with boats. These floods add, however, very greatly to the fertility of the country, as the cacao plantations and meadows thrive exceedingly when the water subsides. In the summer, the heat being moderated by the sea and land breezes, the number and activity of all these creatures is much decreased; and this season, which is the coldest, renovates the inhabitants, who have been rendered listless and indolent by the suffocating heat which prevails during the rains.

Guayaquil grows cacao, tobacco, wax, cotton, timber for naval and architectural purposes, sugar, maize, and plantains; and rears great quantities of cattle. The quantity of cacao gathered annually in Guayaquil, for exportation and home consumption, amounts to 50,000 loads, at £81 the load. The rivers furnish fish in great plenty, but the city is scantily supplied, owing to the putridity which so soon takes place in transporting fresh fish. The coasts abound with lobsters, oysters, and most kinds of salt-water fish. All the rivers in the vicinity of Guayaquil abound with large alligators, some of which are five yards in length. They destroy vast quantities of the fish, and are usually seen basking on the marshy shores, or employed in catching their food: they feed also on flies, musquitoes, &c., which they catch by keeping their huge mouths open until filled with these insects, which soon happens in a country where the air swarms with them. Calves and colts in the meadows, as well as dogs and other small animals, often fall a prey to these amphibious creatures, who approach the pastures in which they feed in the night, and carry them off. Many of the small rivers on the coasts of Spanish America are said to contract a musky smell and taste, from the vast numbers of alligators with which they abound; and it is even asserted that seamen are aware of the presence of these animals, by the peculiar white color of the water which they frequent, but, nevertheless, do not refrain from supplying their ships with that article from such streams, as it has never been discovered that the change in taste, smell, and color, imparts any noxious quality to the fluid.

Guayaquil exports the produce of its departments to Peru, Panama, and Quito, receiving European goods from Tierra Firme; from New Spain and Guatimala, naphtha, tar, cordage, and indigo. In the annual domestic and foreign

trade of Guayaquil, the exportations, of which the principal article is cacao, are valued in good seasons at £119,170, whilst the importations in a like period arise to £260,000 sterling.

Guayaquil is divided into seven departments, Puerto Viejo, Punta de Santa Elena, the island of Puna, Yaguache, Babahoyo, Baba, and Daule. The capital of the whole district is Guayaquil, a city of considerable importance at the bottom of the gulf of Guayaquil, and at the mouth of the river of the same name, in 2° 12′ S. lat., and 79° 6′ W. long. In 1693 great additions were made to it, on the other side of a branch of the river, which now divides the city into two parts, known by the names of the New and Old towns, communicating with each other by a long bridge. The houses are constructed mostly of wood or whitened earth. It has suffered repeatedly by conflagration, and was reduced to ashes in 1764; since which the government have forbid the inhabitants to thatch their houses with straw. The streets of the New Town are straight, wide, and well paved. Arcades run along before all the houses, so that the people can walk protected from the rain and sun. It is now one of the handsomest towns of South America. It has a handsome church, college, convents, and an hospital. There is also a treasury and revenue office, for the receipt of the Indian capitation tax, the duties on imports and exports, and other taxes. The number of inhabitants is 10,000. The women are proverbially handsome, which causes many Europeans to marry and settle here.

Guayaquil was named a royal dock-yard in 1767, and the abundance of excellent timber produced in its neighbourhood renders it very fit for this purpose. The balsam tree, and several others, yield excellent knees, and are celebrated for resisting worms and rot. Notwithstanding these advantages, the building of vessels is neglected, and the river and coasting trade is carried on in balsas, which receive the cargoes of the vessels arriving from Europe, Lima, or Panama. These balsas or rafts are peculiar to the coast of the provinces of Cundinamarca. They are made of five, seven, or nine trunks of an exceedingly light tree called balsa; and are made larger or smaller, according as they are wanted for fishing, for the coasting trade, or for the rivers. The city is defended by three forts; two on the borders of the river, and the other inland.

GUBEN, a handsome town of the Prussian States in Lower Lusatia, seated on the Neisse, and seventy miles north-east of Dresden, It has a manufacture of cloth, and a good trade in flax and linen. Inhabitants about 6000.

GUBERNATION, *n. s.* Latin *gubernatio*. Government; superintendency; superior direction.

> Perhaps there is little or nothing in the government of the kingdoms of nature and grace, but what is transacted by the man Jesus, inhabited by the divine power and wisdom, and employed as a medium or conscious instrument of this extensive *gubernation*. *Watts.*

GU'DGEON, *n. s.* Fr. *goujon*. A small fish found in brooks and rivers, easily caught, and therefore made a proverbial name for a man easily cheated; a bait or allurement.

> But fish not with this melancholy bait,
> For this fool's *gudgeon*, this opinion.
> *Shakspeare.*
>
> This he did to draw you in, like so many *gudgeons*, to swallow his false arguments. *Swift.*
>
> 'Tis true, no turbots dignify my boards;
> But *gudgeons*, flounders, what my Thames affords.
> *Pope.*

GUDGEON, in ichthylogy, a species of cyprinus. See CYPRINUS. These fish, though small, are of a pleasant taste, very little inferior to smelt. They spawn twice in summer; and their feeding is much like the barbels in streams and on gravel, slighting all kinds of flies: but they are easily taken with a small red worm, fishing near the ground; and, being a leather-mouthed fish, will not easily get off the hook when struck. They may be fished for with float, the hook lying on the ground; or by hand, with a running line on the ground, without cork or float. But, although the small red worm is the best bait for these fish, yet wasps, gentles, and cadbaits do very well. They may also be fished for with two or three hooks at once, and afford pleasant sport, where they rise any thing large. When angling for them, stir up the sand or gravel with a long pole; this will make them gather faster to that place, and bite faster and more eagerly.

GUELDERLAND, a province of the Netherlands, bounded on its respective frontier lines by Overyssel, Westphalia, North Brabant, Holland, and Utrecht. Its extent is about 2020 square miles; its population 243,000. The surface is level, but not so flat as part of the Netherlands. The soil is in some parts heavy and turfy, in others light, and, on the whole, not very fertile. The province is watered by the Rhine, the Waal, the Yssel, the Leck, and the Maese, and several large canals. The principal productions are buck-wheat, potatoes, fruit, tobacco, and hops; The pasturage is very good. The inhabitants are employed chiefly in agriculture, but also in manufactures; linen being made in this province, also paper and leather. Guelderland is the seat of many old Dutch families, who are unconnected with trade.

The chief branch of commerce is the transit of goods from the coast to the interior of Germany. The duties are nominally only 3 per cent. ad valorem, but considerably exceed this limit on wine and other articles, of which the bulk is large in proportion to the value. The greater part of the inhabitants are Protestants. The province sends six members to the states-general, and in point of jurisdiction is under the high court at the Hague. The provincial states consist of ninety members. Guelderland is divided into four districts, viz. Arnheim, with 74,000 inhabitants; Nimeguen, with 49,000; Zutphen, with 79,000; and Thiel, with 46,200. These, however, do not comprise the whole extent of the ancient duchy of Gueldres. After the declaration of independence, made by the maritime provinces of the Netherlands, three of the quarters, viz. Nimeguen, Zutphen, and Arnheim (constituting Lower Gueldres), joined the league of Utrecht in 1579, and formed the Dutch province of Guelderland. The fourth (of Ruremonde), then called Upper Gueldres, remained

subject to Spain until the peace of Utrecht, when it was made over to the king of Prussia. Part of it was afterwards ceded by Prussia to the United Provinces, and the whole in 1795 to France. This lasted till 1814, when the whole once more changed masters: a part of Upper Gueldres is included in the Prussian province of the Rhine; but the greater part belongs to the Netherlands, and is included in the province now described.

GUELDERS, or GELDERS, a small town of the Prussian states, in the goverment of Cleves: it was the chief town of Prussian Guelderland, and originally gave name to the whole province. It now has only 1550 inhabitants, who are employed in manufactures. The castle, one of the strongest fortresses in the Netherlands, was demolished in 1764. Twenty miles S.S.E. of Cleves, and thirty N. N.W. of Dusseldorff.

GUELPH, the surname of the royal family of Great Britain.

GUELPHS, or GUELFS, a celebrated faction in Italy, antagonists of the Gibelins. The Guelphs and Gibelins kept Germany and Italy in perpetual agitation during the greater part of three centuries. The former supported the pretensions of the popes, the latter those of the emperor. Their rise is referred by some to the time of Corrad III., A. D. 1139; by others to that of Frederic I.; and by others to that of his successor Frederic II., A. D. 1240, upon his being excommunicated by pope Gregory IX. But the most probable opinion is that of Maimbourg, who says, that the two factions arose from a quarrel between two ancient and illustrious houses on the confines of Germany, viz. the Henries of Gibelling, and the Guelphs of Adorf. The name Guelph is said to have been formed from Welfe, or Welfo, on the following occasion:—The emperor Conrad III. having taken the duchy of Bavaria from Welfe VI., brother of Henry, duke of Bavaria, Welfe, assisted by the king of Sicily, made war on Conrad, and thus gave birth to the faction of the Guelfs. Others derive the name from the German Wolf, on account of the grievous evils committed by that cruel faction: others deduce the denomination from that of a German called Guelfe, who lived at Pistoye; adding, that his brother, named Gibel, gave his name to the Gibelins. It is said by some, that the Gibelins, when driven out of Italy long after the year 1229, at which period the contest between them and the Guelphs ran very high, and settled at Amsterdam, were the inventors of the mercantile practice of re-change, or re-exchange, on bills of exchange, on account of the damages and charges they were put to, and the interest of the money of their bills protested, which had been given to them for the effects they had been obliged to leave behind them.

GUEMENE'E, a neat town of Brittany, situated in the department of the Loire Inferieure. Nine miles north of Blain. Population 3600.

GUERANDE, a large town of Brittany, in the department of the Loire Inferieure, between the mouth of the Vilaine and the Loire. It contains 7200 inhabitants, and has extensive manufactures of salt. Thirty-six miles west of Nantes, and thirteen south of Roche Bernard.

GUE'RDON, *n. s.* Fr. *guerdon, gardon.* A reward; a recompense, in a good and bad sense. A word now no longer in use.

The sixte thing that shuld move a man to contrition is the hope of three thinges,—that is to say, forgevenesse of sinne; and the yeft of grace for to do wel; and the gloree of heven with whiche God shal *guerdon* man for his good dedes.

Chaucer. The Persones Tale.

I love as well as ye;
And lenger have served hire in my degre;
And if she should have loved for long loving,
To me, alone, had be the *guerdoning.*

Id. Assemble of Foules.

But Love, alas! quite him so ill his wage,
With cruel daunger, plainly at the laste
That with the dethe *guerdonlesse* he paste.

Id. Complaint of the Blacke Knight.

But to the virgin comes, who all this while
Amazed stands herself so mocked to see,
By him who has the *guerdon* of his guile,
For so misfeigning her true knight to be. *Spenser.*

Fame is the spur that the clear spirit doth raise
To scorn delights, and live laborious days;
But the fair *guerdon* when we hope to find,
And think to burst out into sudden blaze,
Comes the blind fury with the abhorred sheers,
And slits the thin-spun life. *Milton.*

Fame is the thirst of youth,—but I am not
So young as to regard men's frown or smile
As loss or *guerdon* of a glorious lot;
I stood and stand alone, remembered or forgot.

Byron.

GUERICHE, or GUERICKE (Otho), a native of Prussia, the most celebrated mathematician of his time, was born in 1602. He is said to have been the inventor of the air-pump; and was author of several works in natural philosophy, the chief of which is his Experimenta Magdeburgica. He died in 1686.

GUERNSEY, one of the most considerable of a group of islands on the French coast, once a dependency of the duchy of Normandy, and the only remains of the ancient sovereignty of England over France. They are situated in the gulf of St. Malo, from three to six leagues from the French coast.

Guernsey, the largest, (the Sarnia of Antoninus), is thirteen miles long and eight broad. On the south and south-west the shores are high, precipitous, and broken by deep ravines. On the north and east they are low, indented by bays separated by rocky head-lands, and lined with sunken rocks, which with the strength of the currents are a strong natural defence to the island.

The climate is humid, and the winters stormy. The face of the island is diversified by moderate hills, and watered by numerous streams, serving to turn mills and fertilising the valleys, every inch of which is cultivated with the greatest care, affording the pleasing appearance of industry and its attendant comfort, which is conspicuous in the neat seats of the gentry surrounded by orchards and gardens, and the clean habitations of the peasantry.

The chief produce of the island is corn and apples, and the principal manufacture that of worsted jackets, caps, and stockings, of the first of which there is a great consumption by seamen. Guernsey sends vessels to the Newfound-

land fishery, and in war fits out many privateers; in peace smuggling with the coast of England is an organised business, the objects being French brandies and lace, &c. Some emery stone is also exported, there being a rock of this substance on the island.

The Norman feudal laws are still in use in these islands, but meliorated by time, which has worn down their oppression; they are collected in a book called 'le grand Costumier.' The king's writs from Westminster cannot be executed in these islands, and consequently they offer an asylum for insolvent debtors; neither are they bound by any act of the British legislature unless specifically named, nor can these acts be put in force until sanctioned by the civil government of the islands. The Norman French is the language most generally spoken, and many Norman customs are observed. An appeal lies from the courts of the island to the king in council. The population is about 15,000. St. Pierre is the chief town; which see. Among the marine productions found on the shores are the sea aure, delicate shell-fish, the sea mouse, aphrodita aculeator, and the sea anemone.

Among the curiosities of the coast is La Cave Mahie, on a level with the sea near Prevolet Point on the south; from an entrance of nine feet wide and six high, it expands to fifty feet in height and breadth and 200 feet in length, ending in granite points. The base of the island is entirely of this substance, and several of its heights consist of conical ascents of this grand substratum, raised apparently by a power acting vertically.

GUESS, *v. a.* & *n. s.* } Germ. *gissen*; Goth. *giesa*; Isl. *giska*; Swed. *gissa*. Any thing put together without design; to judge without certain principles; to conjecture either on probabilities or by accident. A guesser is one who judges without certain knowledge.

Guess'er, *n. s.*

Guess'ingly, *adv.*

Ye sawe the lettir that she wrote I *gesse*,
Naie, never yet iwis, quod Troilus.
Chaucer. Troilus and Creseide.

Incapable and shallow innocents!
You cannot *guess* who caused your father's death.
Shakspeare.

Let not your ears despise my tongue for ever,
Which shall possess them with the heaviest sound
That ever yet they heard.
—Hum! I *guess* at it. *Id. Macbeth.*

The enemy's in view; draw up your powers:
Hard is the *guess* of their true strength and forces.
Shakspeare.

I have a letter *guessingly* set down. *Id.*

He that, by reason of his swift motions, can inform himself of all places and preparations, should he not very often *guess* rightly of things to come, where God pleaseth not to give impediment? *Raleigh's History.*

Longer I durst not stay, but soon I *guessed*
Ye were the two she meant; with that I sprung
Into swift flight, till I had found you here;
But further know I not. *Milton's Comus.*

Quoth she, there are no bargains driven,
No marriages, clapped up in heaven;
And that's the reason, as some *guess*,
There is no heaven in marriages. *Hudibras.*

His *guesse* was usually as near to prophecy as any man's. *Fell.*

One may *guess* by Plato's writings, that his meaning, as to the inferiour deities, was, that they who would have them might, and they who would not might let them alone; but that himself had a right opinion concerning the true God. *Stillingfleet.*

There issue swarming bands
Of ambushed men, whom, by their arms and dress,
To be Taxcallan enemies I *guess*. *Dryden.*

A poet must confess
His art's like physick, but a happy *guess*. *Id.*

It is a wrong way of proceeding to venture a greater good for a less, upon uncertain *guesses*, before a due examination, *Locke.*

We may make some *guess* at the distinction of things, into those that are according to, above, and contrary to reason. *Id.*

If Xerxes was able to call every common soldier by his name in his army, it may be *guessed* he got not this wonderful ability by learning his lessons by heart. *Id.*

This problem yet, this offspring of a *guess*,
Let us for once a child of truth confess. *Prior.*

It is the opinion of divers good *guessers*, that the last fit will not be more violent than advantageous. *Pope.*

If fortune should please but to take such a crotchet,
To thee I apply, great Smedley's successor,
To give thee lawn sleeves, a mitre and rochet,
Whom wouldst thou resemble? I leave thee a *guesser*.
Swift.

The same author ventures to *guess* at the particular fate which would attend the Roman government. *Id.*

Nor can imagination *guess*;
How that ungrateful charming maid
My purest passion has betrayed. *Id.*

No man is blest by accident, or *guess*,
True wisdom is the price of happiness. *Young.*

You *guess* each circumstance of Edwin's birth.
Beattie's Minstrel.

'There is a tide in the affairs of men,
Which, taken at the flood'—you know the rest,
And most of us have found it now and then;
At least we think so, though but few have *guessed*
The moment. *Byron.*

GUEST, *n. s.* } Sax. ȝeſt, ȝiſt; Welsh *gwest*; Swed. and Teut. *gast*; Goth. *giest*. One entertained at the house or table of another; a stranger: guestrite, offices due to a guest: guest-chamber, a chamber of entertainment.

Guest'rite, *n. s.*

Guest'-chamber, *n. s.*

Where is the *guestchamber*, where I shall eat the passover with my disciples? *Mark* xiv. 14.

They all murmured, saying, that he was gone to be *guest* with a man that is a sinner. *Luke* xix. 7.

Whilom, ther was dwelling in Oxenforde,
A riche gnof, that *gestes* held to borde.
Chaucer. The Milleres Tale.

No wonder is though that she be astoned
To see so gret a *gest* come in that place;
She never was to none swiche *gestes* woned.
For which she loked with ful pale face.
Id. The Clerkes Tale.

Methinks a father
Is, at the nuptial of his son, a *guest*
That best becomes the table. *Shakspeare.*

Those happiest smiles
That played on her ripe lip, seemed not to know
What *guests* were in her eyes; which parted thence
As pearls from diamonds dropt. *Id.*

Ulysses so dear
A gift esteemed it, that he would not beare
In his black fleete that *guest-rite* to the war.
Chapman.

O desarts, desarts! how fit a *guest* am I for you, since my heart can people you with wild ravenous beasts, which in you are wanting? *Sidney.*

Tell my royal *guest*
I add to his commands my own request. *Dryden.*

But here the Mother of the Maids drew near
With 'Ladies it is time to go to rest;
I'm puzzled what to do with you, my dear,'
She added to Juanna, their new *guest.* *Byron.*

GUETTARDA, in botany, a genus of the heptandria order, and monœcia class of plants: natural order thirty-eighth, tricoccæ: MALE CAL. cylindrical: COR. cleft into seven parts, and funnel-shaped: FEMALE CAL. cylindrical: COR. cleft into seven parts; one pistil, and the fruit a dry plum. Species four; natives of the West Indies.

GUG'GLE, *v. n.* Ital. *gorgoliare.* To sound as water running with intermissions out of a narrow-mouthed vessel.

GUIANA, an extensive country of South America, bounded on the east and north-east by the Atlantic Ocean and the Oronoco; on the south by the Amazon; and on the west by Grenada and New Andalusia, in Terra Firma, from which it is separated on the west and north by the Oronoco. It extends above 1200 miles in length, from north-east to south-west; i. e. from the mouth of the Oronoco to that of the Amazon, and from 300 to 600 in breadth. The Portuguese, French, and Dutch, all formed settlements along the coast. Dutch Guiana, as we have stated in our article AMERICA, SOUTH, is now wholly ceded to Great Britain.

GUIANA, FRENCH, occupies 160 leagues of coast from the Maroni on the north to the Carapona on the south; this latter, which falls into the Amazon in 6° 30′ N. lat., being agreed on as the limit by France and Portugal in 1801. The French first established themselves on this coast in 1625, and gave it the name of equinoctial France; but in 1654 they again abandoned their only establishment at Cayenne, and the Dutch sought to fix themselves on it, but the French, returning in 1664, drove them out, and, though the island was again taken by the Dutch in 1676 they were obliged to restore it the following year.

In 1809 the colony was captured by the English and Portuguese forces combined, but it was restored to France by the peace of 1814.

The whole coast of French Guiana is lined by drowned mangrove islands and mud banks, which bar the mouths of the numerous rivers, and the navigation of which is also generally impeded by ledges of rock. The rains which prevail from January to July, form stagnant ponds and marshes, that render the climate exceedingly unhealthy. The currents are very strong and irregular along this coast. The colony has never been of any considerable advantage to France, as will appear from the following statements of its population and exports.

Population of the colony, exclusive of Cayenne Island.

	1775.	1788.	1798.
Whites	1,300	1,307	1,800
Free people of color		394	
Slaves	8,000	10,748	
	9,300	12,449	

In 1772 Cayenne Island contained only ninety white families, 125 caribbs, and 1500 slaves.

The exports of the colony were:—

	Sugar.	Coffee.	Cacao.	Cotton.	Rocou.	Wood.	Hides.
	quint.	*quint.*	*quint.*	*quint.*	*quint.*	*quint.*	*No.*
1775.	840	900	1000	1000	6000	1400	350
1788.	20	159	210	925	Indigo 50		

The only place worthy of mention, north of Cayenne, is Sinamari, a miserable post containing in 1798 only fifteen or sixteen huts, the remains of a settlement founded in 1763. Cayenne Island lies in the mouth of the Oyak River, forming two branches. The northernmost, named Cayenne River, has but thirteen feet soft mud; the southern branch is called the Mahuri. The island is sixteen leagues in circuit, and is extremely unhealthy; for, the interior being lower than the shores, the rain water stagnates and forms putrid marshes. The town is built on the north-west point of the island, and is a wretched place, the streets steep and narrow, and paved with sharp stones.

Among the numerous islands off Cayenne, the only ones deserving mention are the Two Constables, or Gunners, barren conical rocks whitened with birds' dung. The Malingre Islands, three leagues south-east of Cayenne, are almost inaccessible; on one of them is an hospital for lepers, this malady being very common at Cayenne.

South of Cayenne the principal rivers are the Approuak, which has twelve feet depth at its entrance; the Oyapok, which empties itself west of Cape Orange; the Cassipour, Coanwine, &c.

GUIANA, PORTUGUESE, occupies the left bank of the Amazons. See AMAZONS.

The two principal mouths are here separated by the swampy alluvion island Caviana; besides which, many similar islands are formed by its mud.

The only places in Portuguese Guiana, of which any thing is known, are the little fort of Macapa, and the fortified village of Paru, both on the Amazons.

GUICCIARDINI (Francis), a celebrated historian, born at Florence in 1482. He professed the civil law with reputation, and was employed in several embassies. Leo X. gave him the government of Modena and Reggio, and Clement

VII., that of Romagna and Bologna. Guicciardini was also lieutenant-general of the pope's army, and distinguished himself by his bravery on several occasions; but, Paul III. having taken from him the government of Bologna, he retired to Florence, where he was made counsellor of state, and was of great service to the house of Medicis. He at length retired into the country to write his history of Italy, which he composed in Italian, and which extends from 1194 to 1532. This history is greatly esteemed, and was continued by John Baptist Adriani, his friend. He died in 1540.

Guicciardini (Lewis), nephew of the preceding, wrote a history of the Low Countries and Memoirs of the Affairs of Europe, from 1530 to 1560. He wrote with great spirit against the persecution of the duke d'Alva, for which he imprisoned him. He died in 1583.

GUIDE, *n. s.* & *v. a.*
GUI'DAGE, *n. s.*
GUI'DANCE, *n. s.*
GUIDE'LESS *adj.*
GUI'DER, *n. s.*

Fr. *guide*; Ital. *guidu*; Span. and Port. *guia*; *ab* נדר, to lead a troop or army. — Minsheu. To direct, lead, influence, or govern; to regulate and superintend. A guide is one who directs the way or conduct of another: guidage, an old word which signifies the reward given to a guide: guideless, having no superintendent or governor.

And for to maken you the more mery
I wol my selven gladly with you ride,
Right at my owen cost, and be your *gide*.
Chaucer. Prologue to Cant. Tales.

Calliope, thou sister wise and sly!
And thou Minerva *guide* me with thy grace,
That language rude my matter not deface.
Id. The Court of Love.

They charge me with neglecting the *guidance* of wiser men. *Spenser.*

Who the *guide* of nature, but only the God of nature? In him we live, move, and are. Those things which nature is said to do, are by divine art performed, using nature as an instrument: nor is there any such knowledge divine in nature herself working, but in the *guide* of nature's work. *Hooker.*

Our *guider* come! to the Roman camp conduct us.
Shakspeare.

Can knowledge have no bound, but must advance
So far to make us wish for ignorance?
And rather in the dark to grope our way,
Than, led by a false *guide*, to err by day? *Denham.*

They have all the same pastoral *guides* appointed, authorised, sanctified, and set apart by the appointment of God, by the direction of the Spirit, to direct and lead the people of God in the same way of eternal salvation. *Pearson.*

While yet but young his father died,
And left him to an happy *guide*. *Waller.*

Upon these, or such like secular maxims, when nothing but the interest of this world *guides* men, they many times conclude that the slightest wrongs are not to be put up. *Kettlewell.*

There fierce winds o'er dusky valleys blow,
Whose every puff bears empty shades away,
Which *guideless* in those dark dominions stray.
Dryden.

The' ambitious Swede, like restless billows tost,
Though in his life he blood and ruin breathed,
To his now *guideless* kingdom peace bequeathed. *Id.*

Some truths are not by reason to be tried,
But we have sure experience for our *guide*. *Id.*

That person, that being provoked by excessive pain, thrust his dagger into his body, and thereby, instead of reaching his vitals, opened an imposthume, the unknown cause of all his pain, and so stabbed himself into perfect health and ease, surely had great reason to acknowledge chance for his chirurgeon, and Providence for the *guider* of his hand. *South.*

Whosoever has a faithful friend to *guide* him in the dark passages of life, may carry his eyes in another man's head, and yet see never the worse. *Id.*

Particular application must be left to Christian prudence, under the *guidance* of God's Holy Spirit, who knows our necessity before we ask, and our ignorance in asking. *Rogers.*

As to those who lived under the *guidance* of reason alone, without the assistance of supernatural light, it is highly probable that miracles, or a message from the dead, would persuade them. *Atterbury.*

A prince ought not to be under the *guidance* or influence of either faction, because he declines from his office of presiding over the whole, to be the head of a party. *Swift.*

Women neglect that which St. Paul assigns them as their proper business, the *guiding* of the house. *Decay of Piety.*

The new light served to *guide* them to their neighbours' coffers. *Id.*

This to the young—but thy experienced age
Wants not the *guidance* of a former sage. *Sewell.*

How empty learning, and how vain is art,
But as it mends the life and *guides* the heart
Young.

Once more upon the waters! yet once more,
And the waves bound beneath me as a steed
That knows his rider. Welcome to their roar,
Swift be their *guidance* whereso'er they lead.
Byron. Childe Harold.

GUIDI (Alexander), an eminent Italian poet, born at Pavia in 1650. At Rome he attracted the notice of queen Christina, of Sweden, who retained him at her court; he also obtained a considerable benefice from Pope Innocent XI. and a pension from the duke of Parma. For an important political service he rendered the state of Milan, with prince Eugene, he was enrolled among the nobles and decurions of that town; he died in 1712. His exterior form was unfavorable; he was short and crooked, his head was large, and he was blind of his right eye. His works were published at Verona in 1726.

Guido Aretin. See Aretin.

Guido Reni. See Reni.

The GUIDON is a flag borne by the king's life-guard, broad at one extreme, and almost pointed at the other, and divided into two. It is the ensign or flag of a troop of horse guards.

Guidon, the officer who bears the guidon, is that in the horse-guards which the ensign is in the foot; and takes place next below the cornet.

GUIDONS, guidones, or schola guidonum, were a company of priests established by Charlemagne, at Rome, to conduct and guide pilgrims to Jerusalem, to visit the holy places: they were also to assist them in case they fell sick, and to perform the last offices to them in case they died.

GUIENNE, a province in the south-west of France, to the north of Gascony, and separated from it by the river Garonne: the other principal rivers are the Dordogne, the Lot, the Yarn, and

Aveyron. The modern division of this extensive district is into the five departments of the Gironde, the Lot and Garonne; the Dordogne, the Lot, and the Aveyron. The soil is various, being in many places sandy, in others fertile, but in general well adapted to the culture of the vine; and the collective population is about 1,900,000. In the fourteenth century this part of France was long the scene of war between the French and English, under Edward III. and the Black Prince.

GUJERAT, or GUJRAT, a large province of Hindostan, chiefly situated between the twenty-first and twenty-fourth degrees of northern latitude. It is bounded on the north by the province of Ajmeer, on the east by Malwah and Khandeish, on the south by Aurungabad and the sea, and on the west by a sandy desert, the gulf of Cutch, and the sea; and has been computed to be 320 miles long, by about 180 broad. Parts of this country are fertile in cotton, tobacco, indigo, gum, and sugar; but other portions are very barren. This province is intersected by the Puddar, the Myhic, the Nerbudda, the Taptee, and other rivers, which, being navigable from the sea to a considerable distance, afford much facility both to trade and piracy.

On the north-west, along the bank of the Puddar or Bunass, there is a fenny tract, in which they breed excellent horses and camels, and the cattle are superior to those of any other part of India. Some of their bullocks, which are in general white, with large humps, are sixteen hands high, and will trot in a carriage as fast as good horses. Agriculture is impeded in many places by a want of water, the peasants being obliged to dig wells 100 feet deep; and their crops and flocks being frequently carried off by robbers. The cultivators of the soil are the lower classes of Hindoos, called Coolies, Bheels, and Grassias; the Rajpoot, or military tribe, form a second class; Brahmins the third; Jains the fourth; Mahommedans and their descendants a fifth; genuine Mahommedans and their descendants a sixth; and Parsees (fire worshippers) a seventh; all of whom, except the last, are subdivided into innumerable sects. The one most deserving of notice is that called Angrea, whose profession is to convey money, jewels, bills of exchange, &c., from one part of the country to the other. They have been frequently known to die in defence of the property confided to them. In this province they have hospitals for old or deceased animals.

The Gujeraty language nearly resembles the old Hindy, and is written in the Dewanagari character; but in the large towns a mixed language is generally spoken. Infanticide and self-immolation were till lately very common. It was in Gujerat that the Parsees, or followers of the Magi, were first received by a Hindoo chief, possessor of the town and district of Seyjan, who granted them his protection, on condition of their changing their mode of dress, and laying aside their arms. They are now numerous, and a very inoffensive and industrious race, following the religion of Zoroaster. They have a great aversion to extinguish a fire, and boast that they still possess the sacred flame brought by their ancestors from Persia, nearly 1200 years ago.

The ancient capital of the province was Neherwalla or Puttun (the city). Its present capital is Ahmedabad; but it possesses also the following towns or cities, viz. Surat, Broach, Cambay, Gogo, and Champaneer. Before the discovery of the Cape of Good Hope, there were few countries in the world that carried on a more extensive commerce, or that exhibited a greater progress in the arts.

This country was first subjected by the Mussulman arms, A. D. 1022, when Mahmoud, sultan of Ghizne, on his way to plunder the temple of Somnath, took the capital, and, the Rajpoot prince Byram Deo having fled, Mahmoud placed a Brahmin on the throne. The Rajpoots, however, soon recovered their authority; and, in the year 1179, one of them, named Bim Deo, defeated the Mahommedans with great slaughter. It was again overrun by Cuttub, the Afghan king of Delhi, in 1202; and a third time in 1297, by the troops of Alla I., who brought away with him Cumladi, the beautiful wife of the rajah, who became his spouse.

In 1390 the emperor Mohammed the IVth. appointed one of his father's slaves, by birth a Bramin, to the government of Gujerat, who, upon the death of the emperor in the year 1396, assumed the royal dignity and title of Muzuffer Shah. His family retained possession of Gujerat for nearly a century and a half. His grandson, sultan Ahmed, founded the city of Ahmedabad. In the year 1535 the emperor Homayon invaded Gujerat, and possessed himself of all its principal holds; but, when he was obliged to abandon his throne, a nephew of the last sultan got possession of the province; and it continued to be ruled by that dynasty in a very divided state, till the year 1572, when, the emperor Akbar having advanced against it, Sultan Muzuffer surrendered himself and kingdom into the imperial hands. From that period Gujerat again became one of the provinces of the empire, and so continued till the death of Aurungzebe. It was shortly after that event invaded by the Mahrattas. Surat and some other towns were, however, defended by their governors, who retained their allegiance to the court of Delhi. During the war of 1780 the British got possession of a portion of it; and at present the best parts of it belong to them, to the Guicowar, and to the Peshwa. The British territory consists of a considerable tract on both sides of the gulf of Cambay, and includes the populous cities of Surat, Broach, Cambay, Kaira, and Gogo. The sea coast between the gulf of Cambay and Cutch is occupied by different independent chiefs. The northern and western borders are also possessed by a number of barbarous plunderers.

GUILANDINA, the nickar tree, a genus of the monogynia order, decandria class of plants; natural order thirty-third, lomentaceæ: CAL. monophyllous and salver-shaped; the petals, inserted into the neck of the calyx, nearly equal; the seed-vessel a legumen. There are, species

1. G. bonduca, the yellow nickar.

2. G. bonducella, the gray nickar. These are climbing plants, natives of the West Indies, where they rise to twelve or fourteen feet: the

flowers come out at the wings of the stalks; and are composed of five concave yellow petals. They are succeeded by pods about three inches long and two broad, closely armed with slender spines, opening with two valves, each enclosing two hard seeds, about the size of pistol bullets, of a yellowish color.

3. G. moringa, the morunga nickar, is a native of Ceylon, and some places on the Malabar coast. It rises to twenty-five or thirty feet, having flowers produced in loose bunches from the sides of the branches, and composed of an unequal number of petals. These plants, being natives of warm climates, require to be kept through the winter in a stove in this country. They are propagated by seeds; but those of the bonduca are so hard, that unless they are soaked some days in water before they are put into the ground, or placed under the pots in the tan-bed to soften their covers, they will remain for years without vegetating. The roots of the moringa are scraped when young, and used by the inhabitants of Ceylon and Malabar as those of horse-radish are in Europe. The wood dyes a beautiful blue color. It is the lignum nephriticum, or nephritic wood of the dispensatories; and is brought over in large, compact, ponderous pieces, without knots, of a whitish or pale yellow color on the outside, and dark-colored or reddish within: the bark is usually rejected. This wood imparts to water or rectified spirit a deep tincture; appearing, when placed between the eye and the light, of a golden color; in other situations blue: pieces of another wood are sometimes mixed with it, which give only a yellow color to water. It has scarcely any smell, and very little taste. It has been recommended in difficulty of urine, nephritic complaints, and all disorders of the kidneys and urinary passages.

GUILD, *n. s.* Sax. ȝild; Goth. *gield*; Belg. and Swed. *gild*; Teut. *gilde*. A society; a corporation; a fraternity or company, combined together by orders and laws made among themselves. Hence the common word gild or guild-hall proceeds, being a fraternity or commonalty of men gathered into one combination, supporting their common charge by mutual contribution: and Belg. *gild* is also a contribution.

> Wel semed eche of hem a fayre burgeis,
> To sitten in a *gild* halle on a deis.
> Everich, for the wisdom that he can,
> Was shapelich for to ben an alderman.
> *Chaucer. Prologue to Cant. Tales.*
>
> Towards three or four o'clock
> Look for the news that the *guild* hall affords.
> *Shakspeare. Richard III.*

In woollen cloth it appears, by those ancient *guilds* that were settled in England for this manufacture, that this kingdom greatly flourished in that art.
Hale's Origin of Mankind.

> As when the long-eared milky mothers wait
> At some sick miser's triple-bolted gate,
> For their defrauded absent foals they make
> A moan so loud, that all the *guild* awake. *Pope.*

GUILD, DEAN OF. Every royal borough in Scotland has a dean of guild, who is the next magistrate below the bailie. He judges of controversies among men concerning trade; disputes between inhabitants touching buildings, lights, water-courses, and other nuisances; calls courts, at which his brethren of the guild are bound to attend; manages the common stock of the guild; and amerces and collects fines.

GUILDFORD, or GULDEFORD, a borough town of Surrey, on the Wye, near the ruins of an old castle. In the Saxon times it was a royal villa, where many of the Anglo-Saxon kings used to pass their festivals. It is a corporation consisting of a mayor, recorder, aldermen, &c.; and has sent two members to parliament ever since parliaments commenced. The great road from London to Chichester and Portsmouth lies through this town; and the assizes are held here. Here were formerly two monasteries, the remains of one of which afford accommodation for the judges during the assizes; and part is converted into a boarding-school. The structure is Gothic. Its manufactory formerly was cloth, of which there are still some small remains. Here is a school founded by king Edward VI.; an almshouse endowed with lands, worth £300 a-year; and two charity schools for thirty boys and twenty girls. There are three fine churches. There is a fine circular course for horse races near the town, which begin when the Newmarket races are ended. King William III. founded a plate of 100 guineas to be run for here every May, and used to honor the race with his presence; there are also three subscription plates run for, exclusive of private matches; these are often very brilliantly attended, and the town is crowded with the numerous visitants. The ancient cockpit is now converted to a butter and poultry market. The Wye is made navigable to the town, and by it a great quantity of timber is carried to London, not only from this neighbourhood, but from Sussex and Hampshire woods, thirty miles off. Guildford is thirty miles south-west of London.

GUILD-HALL, or GILD-HALL, the great court of judicature for London. In it are kept the mayor's court, the sheriff's court, the court o hustings, court of conscience, court of common council, chamberlain's court, &c. Here also the judges sit upon nisi prius, &c. See LONDON.

GUILE, *n. s.*, GUILE'FUL, *adj.*, GUILE'FULLY, *adv.*, GUILE'FULNESS, *n. s.*, GUILE'LESS, *adj.*, GUI'LER, *n. s.* Old Fr. *guille*, *gille*; the same with wile. Deceit; cunning; treachery; secretly mischievous, or artful; insidious: guileless implies the opposite of such characteristics, or simply honest; open; sincere.

> Of all this worlde is emperour
> *Gile*, my father, the trechour.
> *Chaucer. Romaunt of the Rose.*
>
> The strong the feble overgothe;
> But I, that were my simple clothe,
> Robbe bothe the robbed and robbours,
> And *gile* the *giled* and *gilours*. *Id.*
>
> A *gilour* shal himself begiled be.
> *Id. The Reves Tale.*
>
> But he was wary wise in all his way,
> And well perceived his deceitful sleight;
> Ne suffered lust his safety to betray;
> So goodly did beguile the *guiler* of the prey
> *Spenser*
>
> With fawning words he courted her awhile,
> And looking lovely, and oft sighing sore,

Her constant heart did court with divers *guile*;
But words and looks, and sighs she did abhor. *Id.*

The way not to be inveigled by them that are so *guileful* through skill, is thoroughly to be instructed in that which maketh skilful against *guile*. *Hooker.*

I trained thy brethren to that *guileful* hole,
Where the dead corps of Bassianus lay.
Shakspeare.

Without expence at all,
By *guileful* fair words, peace may be obtained.
Id. Henry VI.

When I have most need to employ a friend,
Deep, hollow, treacherous, and full of *guile*,
Be he to me! This do I beg of heaven,
When I am cold in zeal to you or yours.
Shakspeare.

We may, with more successful hope, resolve
To wage by force or *guile* eternal war. *Milton.*

Nor thou his malice and false *guile* contemn:
Subtle he needs must be who could seduce
Angels. *Id. Paradise Lost.*

He saw his *guileful* act
By Eve, though all unweeting, seconded
Upon her husband. *Id.*

To whom the tempter *guilefully* replied. *Milton.*

The *guileful* phantom now forsook the shrowd,
And flew sublime, and vanished in a cloud.
Dryden's Æneid.

GUILLIM (John), of Welsh extraction, was born in Herefordshire, about 1565. Having completed his education at Brazen Nose College, Oxford, he became a member of the College of Arms in London; and was made rouge croix pursuivant, in which post he died in 1621. He published, in 1610, a celebrated work, entitled the Display of Heraldry, in folio, which has gone through many editions.

GUILLOTINE, an engine of decapitation, decreed by the French National Assembly to be the sole punishment of persons condemned to death, on the 20th of March, 1792; so named from Dr. Guillot, a member of the assembly, who proposed it as an instrument of mercy, by giving the criminal a more expeditious death than any other means can afford. Its effect, it must be allowed, is instantaneous. This machine consists of two upright posts, ten feet high, joined at the top by an horizontal piece of timber. At four feet from the bottom is a cross bar, on which the neck of the criminal is laid, over which there falls a similar bar, shaped like the front board of our pillory. On the inner faces of the frame are grooves, along which the extreme edges of an axe slide up and down. This axe is heavily laden with lead, and is so contrived that the oblique edge falls upon the neck in a diagonal direction, so as to sever the culprit's head from his body by a sliding cut. The upright side of the axe is wholly included in the groove which guides it, by means of a cord and pulley, up to a catch or pin, with which a separate cord is connected. The criminal is prepared for his fate by the executioner, who, having first cut off his hair, ties him in a standing posture to a board, which he afterwards inclines, so as to lay the body horizontally with the face downwards, and with the head advanced over a basket placed for its reception. The string being pulled by the executioner, the axe descends, and the head is severed in an instant. Louis XVI., his queen and aunt, and multitudes of persons of both sexes, and of all ranks, who were attached to the royal cause in France, suffered death in this way.

This machine is not, however, a new invention, but only an improvement on an instrument used in Scotland and at Halifax, and called the maiden. The cloths, at the first erection of the woollen manufactures, having been often stolen in the night, a law was made, by which the magistrates of Halifax were empowered to execute all offenders, if they were taken in the fact, or owned it, or if the stolen cloth was found upon them, provided the crime was committed, and the criminal apprehended, within the liberties of the forest of Hardwick. Those found guilty were thus executed: an axe was drawn by a pulley to the top of a wooden engine, and fastened by a pin, which being pulled out, the axe fell down in an instant. If they had stolen an ox, horse, or any other beast, it was led with them to the scaffold, and there fastened by a cord to the pin, that held up the axe; and when the signal was given by the jurors, who were the first burghers within the several towns of the forest, the beast was driven away, and the pin plucked out, upon which the axe fell, and beheaded the criminal.

'This instrument,' says Mr. Pennant, 'was very freely used during the reign of Elizabeth: the records before that time were lost: twenty-five suffered in her reign, and at least twelve from 1623 to 1650; after which I believe the privilege was no more exerted. This machine of death is now destroyed; but I saw one of the same kind in a room under the parliament-house at Edinburgh, where it was introduced by the regent Morton, who took a model of it as he passed through Halifax, and at length suffered by it himself. It is in form of a painter's easel, and about ten feet high: at four feet from the bottom is a cross bar, on which the felon lays his head, which is kept down by another placed above. In the inner edges of the frame are grooves; in these is placed a sharp axe, with a vast weight of lead, supported at the very summit with a peg; to that peg is fastened a cord, which the executioner cutting, the axe falls, and decapitates the culprit.'

GUILT, *n. s.*
GUIL'TILY, *adv.*
GUIL'TINESS, *n. s.*
GUILT'LESS, *adj.*
GUILT'LESSLY, *adv.*
GUILT'LESSNESS, *n. s.*
GUIL'TY, *adj.*

Sax. ȝylt, originally signifying the fine or mulct paid for an offence; afterward the offence itself. Goth. and Swed. *gilde*. See GUILD. The contrary to innocence, as wickedness; crime; a state of corruption and sin; chargeable with misconduct: guiltless is innocent; blameless; free from guilt.

We are verily *guilty* concerning our brother, in that we saw the anguish of his soul when he besought us, and we would not hear. *Gen.* xlii. 21.

Then shall the man be *guiltless* from iniquity, and this woman shall bear her iniquity. *Numbers* v. 31.

And although that his Ire hir *gilt* accused;
Yet, in his Reson, he hem both excused.
Chaucer. The Knightes Tale.

A Breton book, written with Evangiles,
Was fet, and on this book he swore anon
She *giltif* was. *Id. The Man of Lawes Tale*

And aske mercy, and *giltelewe*? what nede?
And if that I complaine what life I lede,
You recketh not; that know I out of drede.
Id. Annelida and False Arcite.

I am in this commanded to deliver
The noble duke of Clarence to your hands:
I will not reason what is meant hereby,
Because I will be *guiltless* of the meaning.
Shakspeare.

Many worthy and chaste dames thus,
All *guiltless*, meet reproach. *Id. Othello.*

Close pent up *guilts*
Rive your concealing continents, and ask
These dreadful summoners grace. *Shakspeare.*

Is there not a ballad of the king and the beggar?—The world was *guilty* of such a ballad some three ages since. *Id. Love's Labour Lost.*

Marked you not
How that the *guilty* kindred of the queen
Looked pale, when they did hear of Clarence death?
Shakspeare.

The last was I that felt thy tyranny:
O, in the battle think on Buckingham,
And die in terrour of thy *guiltiness*. *Id.*
I should be *guiltier* than my *guiltiness*. *Id.*
Bloody and *guilty*; *guiltily* awake,
And in a bloody battle end thy days:
Think on lord Hastings, and despair, and die.
Id. Richard III.

It was neither *guilt* of crime, nor reason of state, that could quench the envy that was upon the king for this execution. *Bacon's Henry VII.*

Thou, who doest all thou wishest at thy will,
And never willest aught but what is right,
Preserve this *guiltless* blood they seek to spill;
Thine be my kingdom. *Fairfax.*

I would not have had any hand in his death, of whose *guiltlessness* I was better assured than any man living could be. *King Charles.*

The *guilty* serpents, and obscener beasts,
Creep conscious to their secret rests:
Nature to thee does reverence pay,
Ill omens and ill sights removes out of thy way.
Cowley.

The *guiltless* damsel, flying the mad pursuit
Of her enraged stepdame Guendolond,
Commended her fair innocence to the flood,
That staid her flight with his cross-flowing course.
Milton's Comus.

A good number, trusting to their number more than to their valour, and valuing money higher than equity, felt that *guiltlessness* is not always with ease oppressed. *Sidney.*

He thought his flight rather to proceed of a fearful *guiltiness* than of an humble faithfulness. *Id.*

Guiltless of greatness, thus he always prayed,
Nor knew nor wished he that those vows he made
On his own head should be at last repaid. *Dryden.*

The teeming earth yet *guiltless* of the plough,
And, unprovoked, did fruitful stores allow. *Id.*

With mortal hatred I pursued his life,
Nor he, nor you, were *guilty* of the strife;
Nor I, but as I loved; yet all combined,
Your beauty and my impotence of mind. *Id.*

Farewell the stones
And threshold, *guilty* of my midnight moans. *Id.*

No penance can dissolve our *guilty* fame,
Nor tears, that wash out sin, can wash out shame.
Prior.

, like a dog, could bite as well as whine,
And first complained whene'er the *guilt* was mine.
Pope.

Thou knowest how *guiltless* first I met thy flame,
When love approached me under friendship's name.
Id.

When these two are taken away, the possibility of *guilt*, and the possibility of innocence, what restraint can the belief of the creed lay upon any man?
Hammond on Fundamentals.

All the tumult of a *guilty* world,
Tost by ungenerous passion, sinks away.
Thomson.

A pert prim prater of the northern race,
Guilt in his heart, and famine in his face.
Churchill.

GUINEA, *n. s.* From Guinea, a country in Africa abounding with gold. A gold coin valued at one and twenty shillings.

By the word gold I must be understood to design a particular piece of matter; that is, the last *guinea* that was coined. *Locke.*

Ladies, whose love is constant as the wind:
Cits, who prefer a *guinea* to mankind. *Young.*

GUINEA, a large tract of country on the west coast of the continent of Africa, which some geographers have extended to all the country between the Gambia and Benguela, dividing it into *Upper* and *Lower*; while others confine it to the coast between the Mesurado and Cross River. We take a middle course, indicated by similarity of climate and seasons, and consider Guinea as comprised between the Gambia and Cape Lopez Gonsalvez.

Our navigators give the name of *Windward Coast* to the space between the Rio Grande and Cape Palmas, because the winds are generally from the north, and consequently it lies to windward relative to the gulf of Guinea.

That from the Mesurado to Cape Palmas is named the *Grain Coast*, from a species of pepper called by the natives manigatta, and by Europeans the grain of Paradise.

The *Ivory* or *Tooth* Coast extends from Cape Palmas to the river Frisco or Lagos, and derives its name from the quantity of elephants' teeth procured on it, these animals it is thought being particularly attracted to this part of the coast by its abundance of sugar canes, of which they are extremely fond. This extent of coast is free from danger, and may be sailed along within a league.

The *Quaqua* Coast, from the river Frisco to Assinee. This extent is more usually included in the Ivory Coast.

The *Gold Coast*, according to different writers, commences at Assinee, at Cape Apollonia, and at Cape Three Points, and generally is terminated at the river Volta. It has its name from the quantity of gold-dust brought by the negroes for sale, and which they collect in the sands of the brooks and torrents.

The *Slave Coast* extends from the Volta to Cross River. It is sometimes subdivided into *Dahomey*, or *Whidah*, from the Volta to Porto Nova; *Benin* from the latter river to that of Formosa, and *Ouary* to Cross River. See DAHOMEY.

The coast from Cross River to Cape Lopez has no general appellation, but is marked by the names of its negro tribes, *Biaffra* and *Calbonga*, and *Kalabar* and *Gabon*, from the rivers of these names.

On the west coast of Africa, washed by the Atlantic from the strait of Gibraltar to the Senegal, there is no river of any consequence, and

not a single port. The coast of Guinea has, it is true, a great number of rivers, but most of them are barred and inaccessible to ships, and the ports formed by the islands that line it are few and inconvenient. Beyond this region the great extent to the Cape of Good Hope has but two or three rivers, and an equal number of ports. All the rivers of Africa, within the tropics, are subject to periodical inundations, caused by the heavy rains, when the sun is vertical in the equatorial region. The banks of most of the rivers of Guinea are either marshy and covered with impenetrable mangrove, or close forests, and in few instances afford any dry elevated grounds; there are, however, spots on the banks of the Sierra Leone, which offer a picturesque and varied mountainous scenery. The whole west coast of Africa is beaten by a violent surf, and infested by sharks, while the rivers abound in equally voracious alligators, and the fresh water swamps with the hippopotamus.

The climate of the west coast of Africa, from the latitude of 20° N. to the equator, is in general extremely destructive to Europeans, though some spots are found more salubrious than others. The rainy season commences throughout this tract in May, lasts till October, and is at its height in June and July, with almost constant thunder and lightning. The exhalations from the marshes, formed by the overflowing of the rivers, from the rank vegetation on their banks, and from the vegetable and animal corruption which covers the ground, produce mortal dysenteries and inflammatory fevers. During the dry season, from November to May, the climate is less unhealthy, the atmosphere being then clear, and the heat tempered by sea breezes. In Senegambia the greatest heat is in July, when the thermometer rises in the open air to 120° or even 130°, and in the night never falls below 100°. The winds during the wet season on this coast blow constantly from the north with strong southerly currents, by means of which vessels run from the Senegal to Goree in twenty-four hours, while it requires ten or fifteen days to beat back. During the dry season the thermometer varies in the day between 88° and 68°, and during the night, when there are heavy dews, falls to 60°.

The coast between the Gambia and Cape Verga, a distance of 250 miles, is formed by a chain of low and fertile islands separated from the main, and from each other, by narrow but deep straits. Beyond Cape Verga these low islands are succeeded by an elevated coast, which increases in height till south of Sierra Leone it presents alpine peaks apparently of volcanic origin. On this extent of coast the rains commence the same time as to the north, but are not so intense nor the climate so insalubrious: the extremes of the thermometer throughout the year are 63° and 98°, from May to August. North-west winds are most prevalent, and south-west in September and October. In November, December, and January, north-east winds prevail, with fogs, and the thermometer descends the lowest. In February, March, and April, land and sea breezes are pretty regular, the latter from the south-west in the evening. On this coast between June and October tornadoes are frequent, and chiefly come from between the east and south-east; they blow with all the violence of a hurricane, but seldom longer than an hour or two, and their approach is denoted by black heavy clouds, rising in the south-east an hour before their arrival. Other writers say these storms are announced by a small white cloud, but this captain Beaver positively contradicts from the experience of seventy of them; of which sixty-three came from between east and south-east, two at E. N. E., three at north-east, and two at north-west. The word tornado is Portuguese, and signifies a whirlwind.

Between Sierra Leone and Cape Palmas the prevailing winds are from north-west and N. N. W., but after passing this cape they blow throughout the gulf of Guinea from south-west to S. S. W. The general current sets to the south-east to Cape Palmas, round which it curves to the E. N. E into the gulf. On the equator, in the gulf of Guinea, the current sets at times strong to the west, chiefly in June, July, and August, and particularly at the new and full moon.—Horsburgh's Ind. Direct. We are inclined to attribute this westerly current to the great quantity of fresh water emptied into the eastern port of the gulf during these rainy months.

The *Grain*, *Ivory*, and *Gold* Coasts are low and thickly wooded; but inland, at a short distance, the country is pleasantly diversified with hills and plains extremely fertile, and with abundance of good water, an article that is both scarce and bad near the shore. The seasons are similar to those already noticed, but the heat is greater on the Gold Coast than even in Senegambia, the thermometer rising in the open air to 134°. On the whole coast of Guinea, from the Gambia to Cape Lopez, a singular wind, called the harmattan, blows from the interior of Africa, occasionally in December, January, and February. It has no regular period of duration, sometimes continuing only a few hours, at others for several days; it is cold, and always attended with a dense dry fog, through which the sun at noon appears of a pale red. The extreme dryness of this wind withers the leaves of vegetables. At some seasons it is considered malignant, probably after wet weather, when it is loaded with marsh miasma; at others it arrests the progress of epidemic diseases. From the whitish powder which seems to compose the fog, and which subsides on the earth, it has been supposed that this wind blows from some volcano in the unexplored interior of Africa. On the coast of Sierra Leone it blows from the E. S. E., on the Gold Coast from north-east, and towards Cape Lopez from N. N. E.

The *Slave* Coast, between the rivers Volta and Formosa, is low and in general thinly wooded; it is lined by a chain of lagoons, separated from the sea by a narrow border of land, called by the French La Pré, the meadow, and which are formed by the overflowing of the rivers. From the Formosa to the Camerons the coast is intersected by the mouths of numerous rivers, by some supposed to be branches of the Niger, which still conceals its embouchure from the researches of geographers. These rivers carry out

great quantities of mud, which elevate the bottom of the sea, and it seems probable that the projecting land of Cape Formosa, which separates the gulf of Benin and Biafra, is entirely formed of alluvion. A considerable number of elephants frequent this part of the coast; but their tusks are said to be of an inferior ivory. The fresh water swamps are also frequented by the hippopotamus. Between the rivers Camerons and S. Benito, the coast is mountainous, and in the tract called the high land of Ambozes some of the peaks are thought to equal that of Teneriffe in elevation.

After crossing the equator the wet season is from September to November, the rains prevailing at each side of the equator in the respective summer solstice; they are also retarded in going to the south, commencing at Loango in December and lasting till March. After passing Loango there is strictly speaking no wet season.

A brief sketch of the general character of the tribes inhabiting this coast will not be uninteresting.

From the Gambia to the Cassamança occur the *Feloops*, a tribe of idolaters, who are described as melancholy and revengeful, but also honest and grateful. The succeeding tribes on the coast are the *Bagnons*, on the banks of the St. Domingo, who are said to be peaceful cultivators; the *Papels* and *Balontes* occupy the coast of St. Domingo and the Courbali, and are painted as ferocious and inhospitable. The Papels worship trees, ox horns, and all sorts of visible objects. When their king dies a new one is elected in a singular manner; the corpse of the deceased monarch is placed on a bier, encircled by the chief nobles, and being tossed up in the air, the noble on whom it falls in its descent is thereby duly elected.

The *Biafers* occupy the right bank of the Rio Grande: they are somewhat civilised and addicted to commerce. Between the Rio Grande and Nunez is the tribe of *Naloes*, whose lands are well cultivated and produce indigo and cotton, but with whom it is necessary to be guarded. The Bissagos Islands are inhabited by different tribes of idolaters, generally ferocious and treacherous, adorning their huts with the scalps of their enemies; and, in the island of Bissao, the favorite wives of the king are sacrificed on his death and burnt with his corpse.

The negroes of the Grain Coast are said to be jealous of strangers, and are little known. The Ivory Coast to Cape La Hou is also occupied by an unfriendly and warlike tribe, described as anthropophagi, whence the Portuguese give them the name of malos gentes. East of Cape La Hou are the *Quaquas*, or boás gentes, who, like the Hindoos, are divided into casts, the son always following the profession of the father.

The coast between the Volta and Benin is subject to the king of DAHOMEY, which see.

The negroes of Benin are nearly as barbarous as the Dahomeys. Their king, who can bring 100,000 fighting men to the field, is worshipped as a demi-god, is supposed to live without food, and, when he appears to die, is thought, like the Grand Lama, to revive under another human form. Here human victims are sacrificed to the evil principle; and, in their feasts, the king and nobles dip their coral necklaces in the blood of the victims, and pray to the gods, that they may never be deprived of this mark of pre-eminence.

The tribes between Benin and Loango are little known. A second tribe of *Biafers* inhabit the banks of the Formosa, and are said to sacrifice their children to the devil. To them succeed the *Calbongas*, occupying the country through which run the Rio del Rey and San Benito: they are painted as the least civilised of the negro nations, going naked, and selling their children and relations as slaves.

The *Camma* and *Gobbi* succeed the Calbongas, and extend to Cape Lopez: they resemble their southern neighbours of Loango.

Under this vague and general denomination we have thus sketched the great features and general appearance of this coast. ASHANTEE, SIERRA LEONE, and other places of particular importance, will be treated of in their respective places of the alphabet.

For the progress of modern discovery in this neighbourhood, see the latter part of the article AFRICA.

GUI'NEA-DROPPER, *n. s.* Guinea and drop. One who cheats by dropping guineas.

Who now the *guineadropper's* bait regards,
Tricked by the sharper's dice, or juggler's cards.
Gay.

GUI'NEA-HEN, *n. s.* A fowl, supposed to be of Guinea.

GUINEA-HEN. See NUMIDA.

GUI'NEA-PEPPER, *n. s.* Lat. *capsicum*. A plant.

GUINEA-PEPPER. See CAPSICUM.

GUI'NEA-PIG, *n. s.* A small animal with a pig's snout, brought, it is believed, from Africa.

GUINEA-PIG. See CAVIA.

GUINEA-WHEAT. See ZEA.

GUINEA-WORMS. See DRACUNCULI.

GUISE, *n. s.* The same with *wise*, Fr. *guise*; Sax. ꝑiꝑa; the ꝑ or *w* being changed, as is common, into *g*. See GUILE. Manner; external demeanor; practice; custom; fashion, either in conduct or attire.

And, as the *guise* was in his countree,
Ful highe upon a char of gold stood he.
Chaucer. The Knightes Tale.

Yet had nature taught her after her *guise*
To know her foe, and dread him evermore.
Wyatt.

His own sire, and master of his *guise*,
Did often tremble at his horrid view. *Spenser.*

Lo you! here she comes: this is her very *guise*; and, upon my life, fast asleep: observe her, stand close. *Shakspeare. Macbeth.*

Thus women know, and thus they use the *guise*,
T' enchant the valiant and beguile the wise.
Fairfax.

I have drunke wine past my usual *guise*;
Strong wine commands the foole, and moves the wise.
Chapman.

This would not be slept;
Old *guise* must be kept. *Ben Jonson.*

The pomp of kings they should confess
At their crownings to be less
Than a lover's humblest *guise*
When at his mistress' feet he lies. *Cowley.*

They stand a horrid front
Of dreadful length, and dazzling arms, in *guise*
Of warriors old, with ordered spear and shield,
Awaiting what command their mighty chief
Had to impose. *Milton's Paradise Lost.*

Back, shepherds, back:
Here be without duck or nod,
Other trippings to be trod,
Of lighter toes and such court *guise*
As Mercury did first devise. *Milton.*

When I was very young, nothing was so much talked of as rickets among children, and consumptions among young people: after these the spleen came in play, and then the scurvy, which was the general complaint, and both were thought to appear in many various *guises*. *Temple.*

The swain replied, it never was our *guise*
To slight the poor, or aught humane despise.
Pope.

The Hugonots were engaged in a civil war, by the specious pretences of some, who, under the *guise* of religion, sacrificed so many thousands to their own ambition. *Swift.*

Their external shapes are notoriously accommodated to that law or *guise* of life that nature has designed them. *More.*

Thus hid in arms she seemed a goodly knight,
And fit for any warlike exercise:
But when she list lay down her armour bright,
And back resume her peaceful maiden's *guise*;
The fairest Maid she was that ever yet
Prisoned her locks within a golden net,
Or let them waving hang, with roses fair beset.
Fletcher's Purple Island.

And answered like a statesman, or a prophet,
In such *guise* that she could make nothing of it.
Byron.

GUISE (Henry), duke of. See LORRAIN.

GUITA'R, *n. s.* Fr. *guitarre*; Ital. *ghitara*. A stringed instrument of music.

And as wel coud he play on a *giterre*.
Chaucer. The Milleres Tale.

allads and eggs, and lighter fare,
Tune the Italian spark's *guitar*. *Prior.*

And there are songs and quavers, roaring, humming,
Guitars, and every other sort of strumming. *Byron.*

GUITAR, a stringed instrument, in which the strings are fastened to a bridge fixed to the lower part of the belly, and supported by a nut at the end of the neck. The strings are governed by pegs or metal pins at the back of the neck. The instrument had at first but four strings, which have since been increased to five double strings, of which the first three are tuned unisons, and the fourth and fifth octaves to each other. Sometimes the fifth string has no octave lest it should overpower the rest; and the first string is so often false that it is frequently played single. This instrument is tuned and played so many different ways, that it must be strung according to the pitch and tuning. There are two ways of performing on this instrument, either by sweeping or pinching the strings. The most extensive, and the most susceptible of execution, is the pinching of the strings. The arpeggios are more harmonious, because all the strings are in vibration; but they must be touched very lightly and delicately with the right hand, and with firmness, and correct position of the left hand, to produce a good effect. The strings are pinched or thrummed between the rose and the bridge; but the arpeggios ought to be made between the rose and the last fret of the neck, that is, about the middle of the strings, to avoid the harshness resulting from the playing too near the bridge, where the strings are more stubborn and unmanageable than towards the middle.

GULCH, *n. s.* } From Lat. *gulo*.—Skinner.
GUL'CHIN, *n. s.* } A little glutton.

GULDENSTAEDT (John Anthony), M.D., was born at Riga, April 26th, 1745, and in 1763 was admitted into the medical college of Berlin. He completed his studies at Frankfort upon the Oder, where, in 1767, he received his degree. Being invited to Petersburgh, in 1768, he was created adjunct, and in 1770 member of the Imperial Academy, and professor of natural history. In June, 1761, he set out upon his travels, and was absent seven years. From Moscow, where he continued till March 1769, he passed to Voronetz, Tzaritzin, Astracan, and Killar, near Persia. In 1770 he examined the districts watered by the Terek, Sunsha, and Aksai, in the east extremity of Caucasus; and in 1771 penetrated into Ossetia, in the highest part of the same mountain; where he collected vocabularies of the languages spoken in those regions. Having visited Cabarda, and the north of Caucasus, he proceeded to Georgia, and was admitted to prince Heraclius, who was encamped ten miles from Tefflis, and whom he followed in spring to Koketia, and explored the south districts inhabited by the Turcoman Tartars in the company of a Georgian magnate, whom he had cured of a dangerous disorder. In July he passed into Imeretia; penetrated into the middle chain of mount Caucasus, visited the confines of Mingrelia, Middle Georgia, and Eastern and Lower Imeretia; and after escaping many imminent dangers, returned to Kislar on the 18th of November, where he passed the winter, collecting various information concerning the neighbouring Tartar tribes of Caucasus, particularly the Lesgees. In the following summer he journeyed to Cabardo Major, continued his course to mount Beshton, the highest point of the first ridge of the Caucasus, inspecting the mines of Madshar, and went to Tcherkash upon the Don. Thence he made expeditions to Azof and Taganrog, and thence along the new limits to the Dnieper; he finished this year's route at Krementshuk, in New Russia. In the following spring, he was proceeding to Crim Tartary; but, receiving an order of recal, he returned through the Ukraine to Moscow and St. Petersburgh, where he arrived in March 1775. Upon his return he began to arrange his papers; but, before he could finish them for the press, was seized with a violent fever, which carried him off in March 1781. A list of his writings is given in Coxe's Travels.

GULES, *adj.* Fr. *gueules*. Perhaps from *gueule*, the throat. Red; a barbarous term of heraldry.

Follow thy drum;
With man's blood paint the ground: *gules, gules*;
Religious canons, civil laws are cruel;
Then what should war be? *Shakspeare. Titus.*

He whose sable arms,
Black as his purpose, did the knight resemble,
When he laid couched in the ominous horse,

Hath now his dread and black complexion smeared
With heraldry more dismal; head to foot,
Now he is total *gules*. *Shakspeare.*

His seven-fold targe a field of *gules* did stain;
In which two swords he bore: his word, 'Divide and reign.' *Fletcher's Purple Island.*

GULE OF AUGUST, the day of St. Peter ad vincula, which is celebrated on the 1st of August. It is called the gule of August from gula, a throat, because one Quirinus, a tribune, having a daughter diseased in her throat, went to pope Alexander, the sixth from St. Peter, and desired of him to see the chains that St. Peter was chained with under Nero; which request being granted, she, on kissing the chains, was cured of her disease; whereupon the pope instituted this feast in honor of St. Peter. Hence the day was called also that of St. Peter ad vincula.

GULES, a corruption of the French word gueules, which in heraldry signifies red, is represented in engraving by perpendicular lines. See diagram. This color is by the generality of the English heralds ranked before azure. But the ci-devant French heralds preferred azure.



GULF, *n. s.* } Fr. *golfe;* Ital. *golfo;* Gr.
GULF'Y, *adj.* } κοιλος; Goth. *gialfur.* A deep, concave, receptacle for water; a bay; an unfathomable abyss; a whirlpool or eddy: figuratively applied to any thing insatiable, as woe, or despair;—thus hell is termed a fiery gulf.

Thence turning back, in silence soft they stole,
And brought the heavy corse with easy pace
To yawning *gulph* of deep Avernus' hole.
Spenser.

The Venetian admiral withdrew himself farther off from the island Corfu, into the *gulf* of the Adriatick. *Knolles.*

I know thou'd'st rather
Follow thine enemy in a fiery *gulph*,
Than flatter him in a bower. *Shakspeare.*

Scull of dragon, tooth of wolf,
Witches mummy; maw and *gulf*
Of the ravening salt sea shark;
Root of hemlock, digged i' the' dark. *Id.*

England his approaches makes as fierce
As waters to the sucking of a *gulf*. *Id.*

Rivers arise; whether thou be the son
Of utmost Tweed, or Ouse, or *gulfy* Don.
Milton.

This is the *gulf* through which Virgil's Alecto shoots herself into hell: the fall of waters, the woods that encompass it, are all in the description. *Addison.*

The sea could not be much narrower than it is, without a great loss to the world; and must we now have an ocean of mere flats and shallows, to the utter ruin of navigation, for fear our heads should turn giddy at the imagination of gaping abysses and unfathomable *gulfs*? *Bentley.*

At their native realms the Greeks arrived,
All who the war of ten long years survived,
And scaped the perils of the *gulfy* main. *Pope.*

High o'er a *gulfy* sea the Pharian isle
Fronts the deep roar of disemboguing Nile. *Id.*

What dreadful pleasure! there to stand sublime,
Like shipwrecked mariner on desert coast,
And view the' enormous waste of vapour, tost
In billows, lengthening to the horizon round,
Now scooped in *gulfs*, with mountains now embossed.
Beattie's Minstrel.

A GULF, in geography, is a capacious bay between two promontories, sometimes taking the name of a sea, when very extensive; but particularly when it only communicates with the sea by a strait. Such are the Euxine or Black Sea, called the gulf of Constantinople; the Adriatic Sea, or the gulf of Venice; the gulf of Lyons, near France, and the gulf of Sierra, near Barbary. All these are in the Mediterranean. There are the gulfs of Mexico, St. Lawrence, and California, in North America; tne gulf of Persia, or the Red Sea, between Persia and Arabia; the gulf of Bengal in India; and the gulfs of Cochin-China and Kamtschatka, near those countries.

GULF STREAM. See FLORIDA, BAY OF.

GULL, *v. a.* & *n. s.* } Fr. *guiller;* Goth.
GULL'-CATCHER, *n. s.* } *goela, guæla;* Teut.
GUL'LER, *n. s.* } *gillen.* To cheat;
GUL'LERY, *n. s.* } trick, or deceive. Gull is the name of a sea-bird: a stupid animal; one easily cheated: guller, an impostor, or knave: gullery a cheat: gull-catcher, one who catches silly people.

Being fed by us you used us so,
As that ungentle *gull*, the cuckow bird,
Useth the sparrow. *Shakspeare. Henry IV.*

Why have you suffered me to be imprisoned,
Kept in a dark house, visited by the priest,
And made the most notorious geck and *gull*
That e'er invention played on. *Id. Twelfth Night.*

I should think this a *gull*, but that the white-bearded fellow speaks it.
Id. Much Ado about Nothing

If I do not *gull* him into a nay word, and make him a common recreation, do not think I have wit enough to lie straight in my bed. *Shakspeare*

Here comes my noble *gull-catcher*. *Id.*

Yet love these sorceries did remove, and move
Thee to *gull* thine own mother for my love.
Donne.

That paltry story is untrue,
And forged to cheat such *gulls* as you.
Hudibras.

He would have *gulled* him with a trick,
But Mart was too too politick. *Id.*

For this advantage age from youth has won,
As not to be out-ridden, though out-run;
By fortune he was now to Venus trined,
And with stern Mars in Capricorn was joined:
Of him disposing in his own abode,
He soothed the goddess, while he *gulled* the god.
Dryden.

The Roman people were grossly *gulled* twice or thrice over, and as often enslaved in one century, and under the same pretence of reformation. *Id.*

By their designing leaders taught,
The vulgar, *gulled* into rebellion, armed. *Id.*

They are not to be *gulled* twice with the same trick.
L'Estrange.

Either they have these excellencies they are praised for, or they have not; if they have not, 'tis an apparent cheat and *gull*. *Government of the Tongue.*

The eagle soars alone: the *gull* and crow
Flock o'er their carrion, just as mortals do. *Byron.*

GULL, in ornithology. See LARUS.

GUL'LET, *n. s.* } Fr. *goulet;* Lat. *gula;*
GULOS'ITY, *n. s.* } Dut. *golpen.* The passage
GULP, *v. a.* & *n. s.* } through which the food passes, called by anatomists œsophagus: a small stream, or lake. Gulosity is greediness, or

gluttony: gulp, to swallow eagerly, or suck down without intermission.

Out of the hardy bones, knocken they
The mary; for they causten nought away
That may go through the *gullet* soft and sote.
Chaucer. The Pardoneres Tale.

England his approaches makes as fierce
As waters to the sucking of a *gulf*. *Shakspeare.*

The Euxine sea and the Mediterranean, small *gullets*, if compared with the ocean. *Heylyn.*

It might be his doom
One day to sing
With *gullet* in string. *Denham.*

Many have the *gullet* or feeding channel which have no lungs or windpipes; as fishes which have gills, whereby the heart is refrigerated; for such thereof as have lungs and respiration are not without wizzon, as whales and cetaceous animals.
Browne's Vulgar Errours.

As oft as he can catch a *gulp* of air,
And peep above the seas, he names the fair.
Dryden.

He loosens the fish, *gulps* it down, and as soon as ever the morsel was gone wipes his mouth.
L'Estrange.

I see the double flaggon charge their hand;
See them puff off the froth, and *gulp* amain,
While with dry tongue I lick my lips in vain.
Gay.

The liquor in the stomach is a compound of that which is separated from its inward coat, the spittle which is swallowed, and the liquor which distils from the *gullet*. *Arbuthnot.*

In deep suspirations we take more large *gulps* of air to cool our heart, overcharged with love and sorrow. *More.*

'Give me the oyster, then—'tis well'—
He opens it, and at one sup,
Gulps the contested trifle up,
And smiling gives to each a shell. *Somerville.*

To GUL'LY, *v. n.* Corrupted from gurgle. To run with noise.

GU'LLYHOLE, *n. s.* From gully and hole. The hole where the gutters empty themselves in the subterraneous sewer.

GUM, *n. s.* & *v. a.*
GUM'MINESS, *n. s.*
GUM'MOSITY, *n. s.*
GUM'MOUS, *adj.*
GUM'MY, *adj.*
} Lat. *gummi*; Gr. κομμι. A vegetable substance, differing from a resin, in being more viscid and less friable, and generally dissolving in aqueous menstruums.—Quincy. Sax. Loma; Dut. *gumme*. The fleshy covering that invests and contains the teeth. To close or smear with gum: gummy and gummous are applied to whatsoever consists, is productive of, or overgrown with, gum.

That for to speken of *gomme*, herbe or tre,
Comparaison may none imaked be.
Chaucer. Prologue to Legende of Good Women.

The babe that milks me,
I'd pluck my nipple from his boneless *gums*.
Shakspeare.

One whose eyes,
Albeit unused to the melting mood,
Drop tears as fast as the Arabian trees
Their medicinal *gum*. *Id. Othello.*

From the utmost end of the head branches there issueth out a *gummy* juice, which hangeth downward like a cord. *Raleigh.*

He ripens spices, fruit, and precious *gum*,
Which from remotest regions hither come. *Waller.*

The clouds
Tine the slant lightening; whose thwart flame driven down,
Kindles the *gummy* bark of fir and pine. *Milton.*

Nor all the *gummy* stores Arabia yields.
Dryden.

How each arising alder now appears,
And o'er the Po distils her *gummy* tears. *Id.*

The yawning youth, scarce half awake, essays
His lazy limbs and dozy head to raise;
Then rubs his *gummy* eyes, and scrubs his pate. *Id.*

Her maiden train,
Who bore the vests that holy rites require,
Incense, and odorous *gums*, and covered fire. *Id.*

Observations concerning English amber, and relations about the amber of Prussia, prove that amber is not a *gummous* or resinous substance drawn out of trees by the sun's heat, but a natural fossil.
Woodward.

Sugar and honey make windy liquors, and the elastick fermenting particles are detained by their innate *gummosity*. *Floyer.*

The tendons are involved with great *gumminess* and collection of matter. *Wiseman's Surgery.*

The eyelids are apt to be *gummed* together with a viscuous humour. *Id.*

She untwists a wire, and from her *gums*
A set of teeth completely comes. *Swift.*

Flowers whose wild odours breathe but agonies,
And trees whose *gums* are poison. *Byron.*

GUM is the mucilage of vegetables, and is of no particular smell or taste. It becomes viscous and tenacious when moistened with water; totally dissolves in water into a liquid, more or less glutinous in proportion to the quantity of the gum; not dissolving in vinous spirits or in oils; burning in the fire to a black coal, without melting or catching flame; suffering no dissipation in the heat of boiling water. The true gums are gum arabic, gum tragacanth, gum senega, the gum of cherry and plum trees, and such like. All others have more or less of resin in them. See CHEMISTRY. For more particular descriptions of the gums, and also of the gum-resins, see CHEMISTRY, Index.

GUM ELASTIC is treated of under the title of CAOUTCHOUC both in the article CHEMISTRY and in its alphabetical place. GUAIACUM is also separately noticed in the body of the work.

GUM, in gardening, a kind of gangrene incident to fruit-trees of the stone kind, arising from a corruption of the sap, which, by its viscidity, not being able to make its way through the fibres of the tree, is, by the protrusion of other juice, made to extravasate and ooze out upon the bark. When the distemper surrounds the branch, it admits of no remedy; but when only on one part of a bough, it should be taken off to the quick, and some cow dung clapped on the wound, covered over with a linen cloth, and tied down. M. Quintinie directs to cut off the morbid branch two or three inches below the part affected.

GUM ARABIC is the produce of a species of Mimosa. Its chief use in medicine is from its glutinous quality, which serves to incrassate and obtund thin acrid humors, and thus is useful in coughs, alvine fluxes, hoarsenesses, gripes, &c. In a dysuria the true gum arabic is more cooling than the other simple gums. One ounce of gum arabic renders a pint of water considerably glutinous: four ounces give it a thick

syrupy consistence: but for mucilage, one part gum to two parts water is required; and for some purposes an equal proportion will be necessary. Hasselquist relates an instance of the extraordinary nutritive virtues of this gum, which happened to an Abyssinian caravan, whose provisions were consumed, when they had still two months to travel. 'They were then obliged to search for something among their merchandise wherewith they might support nature; and found nothing more proper than gum arabic, of which they had carried a considerable quantity along with them. This served to support above 1000 persons for two months; and the caravan at last arrived at Cairo without any great loss of people either by hunger or diseases.'

GUMMA, a sort of venereal excrescence on the periosteum of the bones.

GUMBINNEN, a modern government of East Prussia, comprising Prussian Lithuania, and bounded by Russia, the kingdom of Poland, and the government of Konigsberg. Its superficial extent is 6150 square miles, with 350,000 inhabitants, of whom the majority are Lutherans; next to them are the Calvinists; and last the Catholics. Prussian Lithuania is the most fertile part of East Prussia; but manufactures are nearly unknown. In 1710 it was almost depopulated by the plague; and two years after the king of Prussia admitted into the country several thousand emigrants from Switzerland, France, the Palatinate, and Franconia. In 1731, and 1734, more than 20,000 Saltzburghers came hither. These settlers cleared the superfluous woods, drained the marshes, and cultivated the land with much success. The native Lithuanians are now but few in number. During the seven years' war this province suffered severely from the Russians, but the government granted funds for its relief. Prussian Lithuania was formerly divided into the circles of Insterburg, Oletzko, and Schesten. Since the erection of the government of Gumbinnen, smaller divisions have been adopted; it contains nine circles, viz. Gumbinnen, Oletzko, Johannisburg, Memel, Stalluponen, Tilsit, Niederungen, Angerburg, and Rhein.

GUMBINNEN, a town of East Prussia, on the Pissa, and the chief place of the new government above described. It is regularly and neatly built; the chief object of commerce is corn, though the manufactures of woollen, linen, and leather, are not inconsiderable: it is exposed to hazard from land floods. The inhabitants are chiefly protestants, and service is performed both in the German and Lithuanian languages. Population 5300. Sixty-five miles east of Konigsberg.

GUMS, in anatomy, the hard fleshy substance in either jaw, through which the teeth spring from the jaw-bone. See ANATOMY. The gums are apt to become spongy, and to separate from the teeth; but the cause is often a stony kind of crust, formed therein, which, when separated, the gums soon return to their former state, especially if rubbed with a mixture of the infusion of roses four parts, and the tincture of myrrh one. The scurvy is another disorder which sometimes affects the gums, when not manifest in any other part.

GUN, *n. s.*
GUN'NEL, *n. s.*
GUN'NER, *n. s.*
GUN'NERY, *n. s.*
GUN'-POWDER, *n. s.*
GUN'-SHOT, *n. s.* & *adj.*
GUN'-SMITH, *n. s.*
GUN'-STICK, *n. s.*
GUN'-STOCK, *n. s.*
GUN'-STONE, *n. s.*
GUN'-WALE, *n. s.*

Of this word there is no satisfactory etymology, Dr. Johnson says. Mr. Lye observes, that gun in Iceland signifies battle; but when guns came into use we had no commerce with Iceland. 'May not gun come by gradual corruption from *canne*, *ganne*, *gunne*? *Canne* is the original of cannon.' Mr. Thomson refers to the Scot. *gyn*, or *gin* (engine). The general name for fire-arms; the instrument from which shot is discharged by fire. Gunnel, corrupted from gun-wale. Gunner (cannonier) he whose employment is to manage the artillery in a ship. Gunnery, the science of artillery; the art of managing cannon. Gun-powder, the powder put into guns to be fired. It consists of about fifteen parts of nitre, three parts of sulphur, and two of charcoal: the proportions are not exactly kept. Gun-shot, made by the shot of a gun: the reach or range of a gun; the space to which a shot can be thrown. Gun-smith, a man whose trade is to make guns. Gun-stick, the rammer, or stick, with which the charge is driven into a gun. Gunstock, the wood to which the barrel of the gun is fixed. Gun-stone, the shot of cannon. They used formerly to shoot stones from artillery. Gun-wale, or gunnel, of a ship, that piece of timber which reaches on either side of the ship from the half-deck to the fore-castle, being the uppermost bend which finishes the upper works of the hull in that part, and wherein they put the stanchions which support the waste tree; this is called the gun-wale, whether there be guns in the ship or not; also the lower part of any port, where ordnance are, is termed the gun-wale.—Harris.

The knyght with his meyne went to se the walle
And the wards of the town as to a knyht befall;
Devising, en tentifflick, the strengthes al about;
And appointed to his sone the perel and the dout
For shot of arblost and of bowe, and eke for shot of *gonne*
Unto the wardes of the town, and how it might be wonne. *Chaucer. The Pardonere and Tapstere.*

And eke within the castel were;
Springoldes, *gonnes*, bowes, and archers.
Id. Romaunt of the Rose.

With grisly soune, out goeth the grete *gonne*.
Id. Legende of Good Women.

The emperor, smiling, said that never emperor was yet slain with a *gun*. *Knolles's History.*

Tell the pleasant prince, this mock of his
Hath turned his ball to *gunstones*, and his soul
Shall stand sorecharged for the wasteful vengeance
That shall fly with them. *Shakspeare. Henry V.*

The nimble *gunner*
With lynstock now the devilish cannon touches,
And down goes all before him. *Id.*

These dread curses, like the sun 'gainst glass,
Or like an overcharged *gun*, recoil
And turn upon thyself. *Id. Henry VI.*

They slew the principal *gunners*, and carried away their artillery. *Heywood.*

Such as do build their faith upon
The holy text of pike and *gun*:
Decide all controversies by
Infallible artillery. *Hudibras.*

Gun-powder consisteth of three ingredients, saltpetre, small-coal, and brimstone.
Browne's Vulgar Errours.

Those who are come over to the royal party are supposed to be out of *gun-shot*. *Dryden.*

It is of particular esteem with the *gun-smiths* for stocks. *Mortimer.*

The timber is used for bows, pullies, screws, mills, and *gun-stocks*. *Id. Husbandry.*

Burning by *gun-powder* frequently happens at sea. *Wiseman.*

The symptoms I have translated to *gun-shot* wounds. *Id.*

Even a *gun-stick* flying into fame. *Stuart.*

For health and idleness to passion's flame
Are soil and *gun-powder*; and some good lessons
Are also learnt from Ceres and from Bacchus
Without whom Venus will not long attack us. *Byron.*

A GUN is a weapon of offence, which forcibly discharges a ball, or other hard and solid matter, through a cylindric tube, by means of inflamed gun-powder. See GUN-POWDER. The word gun now includes most species of fire-arms; pistols and mortars being almost the only ones excepted from this denomination. They are divided into great and small guns: the former including all that we also call CANNON, ORDNANCE, or ARTILLERY; the latter including MUSKETS, CARABINES, MUSQUETOONS, BLUNDERBUSSES. FOWLING-PIECES, &c. See these articles, particularly ARTILLERY and ORDNANCE.

GUNDELIA, in botany, a genus of the polygamia segregata order, and syngenesia class of plants; natural order forty-ninth, compositæ: CAL. none: florets tubular and hermaphrodite: the receptacle bristly, with scarcely any pappus. Species one only; an American plant.

GUNDWANAH, or GOANDWANAH, an extensive province of Hindostan, stretching from 19° to 25° of N. lat. On the north it is bounded by Allahabad and Bahar, and on the south by Orissa and the river Godavery. To the east it has parts of Orissa, Bengal, and Bahar, and to the west Malwah, Berar, and Allahabad. Its length may be estimated at 400 miles, by about 180 in breadth. It is divided into four districts, Gurrah-Mundela, Choteesgur, Nagpore, and Chandah. Its principal towns are Nagpore, Gurrah, Ruttunpore, Deogur, Ryepore, Sumbhulpore, and Bustar. The greater part of the province is mountainous, woody, poor and unhealthy, but it possesses diamond mines. The more fertile portions belong to the Nagpore Mahrattas, the remainder to various chiefs of the Goands, who, although professing the Hindoo religion, eat animal food, and are in a very uncivilised state. The Mahrattas exact from them a moderate tribute. A considerable portion of it is now included in Malwah.

A GUNNER is an officer appointed to fire the guns, either by sea or land. In the Tower of London, and other garrisons, as well as in the field, this officer carries a field staff, and a large powder-horn in a string over his left shoulder. He marches by the guns; and, when there is any apprehension of danger, his field-staff is armed with a match. His business is to lay the gun, to pass, and to help to load and traverse her.

GUNNERA, in botany, a genus of the diandria order, and gynandria class of plants. The amentum consists of uniflorous scales; there is neither calyx nor corolla; the germen is bidented, with two styles and one seed. Species three: one a native of the Cape, the other two from South America.

GUNNERY is the art of charging, directing, and exploding fire-arms, as cannons, mortars, muskets, &c., to the best advantage. This art depends greatly on having the guns and shot of a proper size and figure, and well adapted to each other. See ORDNANCE. As both the theory and practice of gunnery are intimately connected with the subject of PROJECTILES, we shall refer the reader to that article: under which not only the practical part of gunnery, but whatever relates to the action of gun-powder, the velocity it communicates to bullets, the resistance which the atmosphere opposes to their motion, and the curves they describe, will be fully treated of.

GUNPOWDER is a composition of saltpetre, sulphur, and charcoal, mixed together, and usually granulated; which easily takes fire, and when fired, expands with great vehemence, by its elastic force. To this powder we owe all the action and effect of guns, ordnance, &c., so that the modern military art in a great measure depends on it.

The invention of gun-powder is usually ascribed to one Bartholdus Schwartz, a German monk, who discovered it about the year 1320; it is said to have been first used in war by the Venetians against the Genoese in the year 1380. Thevel says its inventor was one Constantine Anelzen, a monk of Friburg. Peter Mexia says it was first used by Alphonsus XI., king of Castile, in the year 1242. Ducange adds, that there is mention made of this powder in the registers of the chambers of accounts of France, so early as the year 1338; and our countryman friar Bacon expressly mentions the composition in his treatise De Nullitate Magiæ, published at Oxford in the year 1216. Some indeed are of opinion, that the Arabians or the latter Greeks were the first inventors of gun-powder about the middle ages of our era; because its Arabic name is said to be expressive of its explosive quality. Considerable improvements have lately been made in the composition of gun-powder by the Chinese.

The method of making gun-powder recommended by colonel James is:—take saltpetre, sulphur, and charcoal; reduce these to a fine powder, and continue to beat them for some time in a stone mortar with a wooden pestle, wetting the mixture occasionally with water, so as to form the whole into a uniform paste, which is afterwards reduced to grains, by passing it through a sieve; and in this form, being carefully dried, it becomes the common gun-powder. For greater quantities mills are used, by means of which more work may be performed in one day than a man can do in 100.

This destructive powder is composed of seventy-five parts nitre, nine sulphur, and sixteen of charcoal in the 100.

To refine the saltpetre.—Put into a copper, or any other vessel, 100 cwt. of rough nitre, with about fourteen gallons of clean water, and let it boil gently for half an hour, and as it boils take

off the scum; then stir it about in the copper, and before it settles, put it into your filtering bags, which must be hung on a rack, with glazed earthen pans under them, in which sticks must be laid across for the crystals to adhere to: it must stand in the pans for two or three days to shoot: then take out the crystals and let them dry. The water that remains in the pans must be boiled again for an hour, and strained into the pans as before, and the saltpetre will be quite clear and transparent; if not, it wants more refining; to effect which, proceed as usual, till it is well cleansed of all its earthy parts.

To pulverise the saltpetre, take a copper kettle whose bottom must be spherical, and put into it fourteen pounds of refined saltpetre, with two quarts or five pints of clean water; then put the kettle on a slow fire: and when the saltpetre is dissolved, if any impurities arise, skim them off; and keep constantly stirring it with two large spattles till all the water exhales; and when done enough it will appear like white sand, and as fine as flour; but, if it should boil too fast, take the kettle off the fire, and set it on some wet sand, by which means the nitre will be prevented from sticking to the kettle. When you have pulverised a quantity of saltpetre, be careful to keep it in a dry place.

As we have not noticed the method of making charcoal in quantities, under that head, we may here subjoin a few remarks on that important constituent of gunpowder. Common charcoal contains only sixty-four parts of diamond, or pure carbon, and thirty-six of oxygen in every 100. The charcoal of commerce is usually prepared from young wood, which is piled up near the place where it is cut, in conical heaps covered with earth, and burnt with the least possible access of air. When the fire is supposed to have penetrated to the centre of the thickest pieces, it is extinguished by entirely closing the vents. When charcoal is wanted very pure, the product of this mode of preparing it will not suffice; for the manufactory of the best gunpowder, it is distilled in iron cylinders; chemists prepare it in small quantities, in a crucible covered with sand, and, after they have thus prepared it, they pound it, and wash away the salts it contains by muriatic acid; the acid is removed by the plentiful use of water, and afterwards the charcoal is exposed to a low red heat. Pure charcoal is perfectly tasteless, and insoluble in water.

Mr. Marshall furnishes us with a very minute account of the manufacture of charcoal. The wood having been selected, and the site or hearth being determined upon, the turf is pared off, and the sods laid on one side. The wood, about ten cords, is then laid in a ring, somewhat wider than the intended hearth; beginning on the outer circumference of the ring, with the smallest of the round wood: laying the larger pieces of top wood, and the cloven roots or but-ends, towards the hearth.

With these last, some of them nearly as large as bushel blocks, they begin to make their pile; having a sort of chimney in the middle (a vertical aperture from a foot to eighteen inches wide); and, round this core of blocks, set up the top wood, which has previously been cut at the time of cording, in a smooth and equable manner joining the pieces, or rather fitting them in, as close to each other as possible: placing the convex side of the logs outward; and thus forming the pile in the shape of an inverted bowl, nearly semi-globular. The pile being formed, it is tiled with sods; which are pointed, to keep in the heat the better, by filling up the seams with fine pulverised mould.

The chimney is now filled with short pieces of dry wood: near the top a live coal is put; over this one layer more of dry pieces; and, upon these, a close cap of seed is placed; nevertheless, this one coal, not larger than the first, and excluded from the open air, is sufficient to set the pile on fire. As the pieces in the chimney burn away, they are replaced with fresh ones: thus feeding the fire with fresh fuel. Close-paled hurdles are placed on the windward side of the heap, to prevent the fire from acting partially.

When the fire begins to show itself at the outward skirts of the bottom of the pile, it is known that the coal is fully burnt (or rather that the wood is sufficiently charred), which it will be, in a pile of ten cords, and in dry weather, in seven or eight days. The fire, during the whole time, is carefully kept from breaking out, by throwing mould or ashes upon the weak parts; so that, though the fire passes through every part of the wood, little or none of the matter of fire escapes.

It is a curious fact, that, notwithstanding the intense heat, no part of the tree is entirely consumed; for it is found that even the moss comes out as entire as when it went in; the only apparent change is in its being rendered friable, and of a black color. Wood that is charred shrinks considerably during the process of charring; but there is no visible derangement of parts. One of the smaller pieces, which is not broken in the drawing, appears as entire when it comes out, as when it went into the pile. The brittleness after charring, however, shows that the texture of the wood is altered, by the action of the fire.

As soon as the fire disappears, on the outside of the heap, the workmen begin to 'draw the coal:' an operation which is done by running a peel between the coal and the hearth; raising up the coal in such a manner as to let the mould and ashes of the sods fall through between the pieces upon the more inward parts still full of fire. If this make its appearance in any particular spot, a peel full of ashes is immediately thrown against it.

Having got sufficiently near to the fire, the coals raised by the peel are raked off, with long-toothed iron rakes: the teeth about a foot long, and standing about six inches apart: the handle and head of wood, except a plate of iron on the back, with which the small coal is gathered together. No sieve, nor any rake with finer teeth than the above, is used. The coal being light is readily brought to the surface of the ashes and dirt; and, when there, is easily collected (though with a kind of slight) with the back of the rake. The side thus drawn, being rounded up and se-

cured with ashes, another, the coolest part, is drawn in the same manner, till the whole packet is taken from the kiln.

Charcoal newly prepared, absorbs moisture with avidity; it also absorbs oxygen and other gases, which are condensed in its pores in quantity many times exceeding its own bulk, and are given out unaltered. Fresh charcoal allowed to cool without exposure to air, and the gas then admitted, will absorb in the following proportion: one part of charcoal will absorb 2·25 times its bulk of atmospheric air immediately, and 75 more in four or five hours; of oxygen gas about 1·8 immediately, and slowly 1 more: of nitrogen gas 1·65 immediately: of nitric oxide 8·5 very slowly: of hydrogen gas about 1·9 immediately: carbonic acid gas 14·3 immediately. The greater part of these gases are expelled by a heat below 212°, and a portion even by immersing the charcoal in water. These absorptions are promoted by a low temperature; but, at an elevated temperature, charcoal has such an affinity for oxygen, that it will abstract it from almost all its combinations. Hence its utility in reviving metals. Fossil coal, and all kinds of bitumen, contain a large quantity of carbon: it is also contained in oils, resins, sugar, and animal substances.

Charcoal is one of the most unchangeable substances; if the access of air be prevented, the most intense heats have no other effect than that just mentioned of hardening it, and rendering its color a deeper black. Insoluble in water, and incapable of putrefaction, it undergoes no change by mere exposure or age; and stakes and other materials of wood which have been charred, or superficially converted into charcoal, have been preserved from decay for thousands of years; the ancients availed themselves of this mode of preparing stakes which were to be driven into the ground for foundations and other purposes.

Gun-powder, says major James, for some time after the invention of artillery, was of a composition much weaker than what we now use, or that ancient one mentioned by Marcus Græcus: but this, it is presumed, was owing to the weakness of their first pieces, rather than to their ignorance of a better mixture; for the first pieces of artillery were of a very clumsy, inconvenient make, being usually framed of several pieces of iron bars, fitted together lengthways, and then hooped together with iron rings; and as they were first employed in throwing stone shot of a prodigious weight, in imitation of the ancient machines, to which they succeeded, they were of an enormous bore. When Mahomet II. besieged Constantinople, in the year 1453, he battered the walls with stone bullets, and his pieces were some of them of the caliber of 1200lb. but they could not be fired more than four times in the twenty-four hours, and sometimes they burst by the first discharge. And Guicciardin, in the first book of his history, informs us, that so large a portion of time between the different chargings and dischargings of one of those pieces, that the besieged had sufficient time to repair at their leisure the breaches made in their walls by the shock of such enormous stones. But as mathematical knowledge increased in Europe, that of mechanics gradually advanced, and enabled artists, by making brass cannon of a much smaller bore for iron bullets, and a much greater charge of strong powder in proportion to their calibres, to produce a very material and important change in the construction and fabric of those original pieces. Accordingly this historian, in the same book of his history, informs us, that about 114 years after the first use made of those unwieldly pieces by the Venetians, in the war which they carried on against the Genoese in the year 1380, the French were able to procure for the invasion of Italy a great number of brass cannon mounted on carriages drawn by horses; and that these pieces could always keep pace with the army.

Gun-powder was not at first grained, but in the form of fine meal, such as it was reduced to by grinding the materials together; and it is doubtful whether the first graining of it was intended to increase its strength, or only to render it more convenient for the filling it into small charges, and the loading of small arms, to which alone it was applied for many years, whilst meal powder was still made use of in cannon. But at last the additional strength, which the grained powder was found to acquire from the free passage of the fire between the grains, occasioned the meal-powder to be entirely laid aside. The coal for making gun-powder is either that of willow or hazle; but the lightest kind of willow is found to be the best, well charred in the usual manner, and reduced to powder. Corned powder was in use in Germany as early as the year 1568; but it was first generally used in England in the reign of Charles I.

It has been recommended by a French writer to preserve gun-powder at sea by means of boxes which should be lined with sheets of lead. M. De Gentien, a naval officer, tried the experiment by lodging a quantity of gun-powder, and parchment cartridges, in a quarter of the ship which was sheathed in this manner. After they had been stowed for a considerable time the gun-powder and cartridges were found to have suffered little from the moisture; whilst the same quantity, when lodged in wooden cases, became nearly half rotted.

The proof of gun-powder, by the board of ordnance, is thus effected:—They first take out of the several barrels of gun-powder a measure full, of about the size of a thimble, which is spread upon a sheet of fine writing paper, and then fired: if the inflammation be very rapid, the smoke rises perpendicular, and if the paper be neither burnt nor spotted, it is then judged to be good powder. Then two drams of the same powder are exactly weighed, and put into an eprouvette; which, if it raises a weight of 24lbs. to the height of three inches and a half, is received into the king's magazine as proof.

Several instruments have been invented to try the strength of gun-powder; but they have generally been complained of as inaccurate. Count Rumford, in the Philosophical Trans. vol. 71. gives an account of a method of trying the strength of it, to which the reader can also refer; but the simple method of the board of ordnance seems to answer every purpose. The following are stated to be the proportions of the different

ingredients for making gunpowder, by different powers in Europe:—

	England.	France.	Sweden.	Poland.	Italy.	Russia.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Saltpetre .	75	75	75	80	76	70
Sulphur . .	10	9½	9	8	12	11½
Charcoal .	15	15½	16	12	12	18½
Pounds .	100	100	100	100	100	100

GUNPOWDER, in law. By stat. 12, Car. II. c. 4. the exportation of gunpowder was allowed if the price did not exceed £5 per barrel.—By 59 Geo. III. c. 73, this restriction as to price is repealed: but power is reserved to the crown to prohibit the exportation at any time.—And see as to Ireland, stat. 49 Geo. III. c. 76.

To obtain an exclusive patent for the sole making or importation of gunpowder or arms, or to hinder others from importing them, incurs the penalties of præmunire by stat. 16 Car. I. c. 21. 1. Jac. II. c. 8. See stat. 46 Geo. III. c. 121. By 12 Geo. III., c. 61, all former acts relative to the making, keeping, and carrying, of gunpowder, are repealed; and by this act it is provided, that no person shall make gunpowder but in the regular manufactories, established at the time of making the statute, or licensed by the sessions pursuant to the provisions in sect. 13, &c., on forfeiture of the gunpowder, and 2*s.* per pound.

The chief provisions are as follow:—Pestle-mills not to be used, on the like penalty. Only 40lbs. of powder to be made at one time under one pair of stones; except Battle-powder, a fine fowling powder so called, made at Battle and elsewhere in Sussex. Not more than 40 cwt. to be dried at one time in one stove. Only the quantity absolutely necessary for immediate use to be kept in or near the place of making, except in brick or stone magazines, fifty yards at least from the mill. All gunpowder-makers to have a brick or stone magazine near the Thames below Blackwall, to keep the gunpowder when made, on penalty of £25 per month; and £5 a day for not removing it when made, with all possible diligence. No dealer is to keep more than 200lbs of powder, nor any person not a dealer more than 50lbs., in the cities of London and Westminster, or within three miles thereof; or within two miles of the king's palaces or magazines, or half a mile of any parish church; on pain of forfeiture and 2*s.* per pound; except in licensed mills; or to the amount of 300lbs. for the use of collieries within 200 yards of them. Not more than twenty-five barrels to be carried in any land carriage, nor more than 200 barrels by water (unless going beyond sea or coastwise); each barrel to contain not more than 100lbs. Various means are directed for the safe conveyance in both cases, and to prevent all danger and delay, sect. 18—22. Outward-bound ships to take in, and homeward-bound to discharge their gunpowder at or below Blackwall; and be searched by the officers of the Trinity-house. General exceptions are made as to his majesty's mills, storehouses, and magazines; and as to powder sent with the army or militia; and exported or carried coast-wise below Blackwall.

Erecting powder-mills, or keeping magazines near a town, is a nuisance at common-law, punishable by indictment or information; but by 46 Geo. III., c. 121, the importation into Great Britain of gunpowder, arms, &c., manufactured in Ireland, is permitted, notwithstanding the stat. 1 Jac. II. c. 8.

GUNTER (Edmund), M. A. and B. D, a celebrated mathematician, born in Hertfordshire in 1581. He studied at Westminster and Oxford, where he graduated in 1606 and 1615. Being eminent for his knowledge in the mathematics, he was, in 1613, chosen professor of astronomy in Gresham College, where he distinguished himself by his lectures and writings. He invented several useful instruments which bear his name; and published Canon Triangulorum, and a work on the Sector, Cross-staff, &c. He died at Gresham College, in 1626.

GUNTER'S QUADRANT. See QUADRANT.

GUNTER'S SCALE, called by navigators simply the gunter, is a large plain scale, generally two feet long, and about an inch and a half broad, with artificial lines delineated on it, of great use in solving questions in trigonometry, navigation, &c.

GUNTOOR, a district of Hindostan, on the western side of the bay of Bengal, called the Northern Circars. It is also called Moortiznagur, and lies immediately north of the Carnatic, and south of the river Kistnah. This district was the Jagier of Bassalut Jung, the brother of the nizam, when the British took possession of the other Circars in 1766, on which account he was allowed to retain it during his life. He died in 1782, but the nizam did not give it over for more than six years. It is about forty miles in length, but a low flat country, calculated for growing rice. Its principal sea-port is Mootapilly, and its chief towns are Condavir and Guntoor. Under the present system of management, it has been united to Palnaud, and is governed by a British judge, collector, &c.

GUNTOOR, the capital of the above district, and station of the civil establishment, possesses a small fort. Long. 80° 30′ E., lat. 16° 20′ N.

GURGE, *n. s.* Lat. *gurges.* Whirlpool; gulf.

> Marching from Eden he shall find
> The plain wherein a black bituminous *gurge*
> Boils out from under ground.
> *Milton's Paradise Lost.*

GU'RGION, *n. s.* The coarser part of the meal, sifted from the bran.

GU'RGLE, *v. n.* Ital. *gorgoliare.* See GUGGLE. To fall or gush with noise, as water from a bottle.

> Then when a fountain's *gurgling* waters play,
> They rush to land, and end in feasts the day. *Pope.*
> Pure *gurgling* rills the lonely desert trace,
> And waste their musick on the savage race. *Young.*

GU'RNARD, *n. s.* } Fr. *gournal.* A kind
GU'RNET. } of sea-fish.

If I be not ashamed of my soldiers I am a sowced *gurnet*: I have misused the king's press damnably.
Shakspeare. Henry IV.

GURRUMCONDAH, a district of Hindostan, in the Carnatic, situated between the thirteenth and fourteenth degrees of northern latitude, and seventy-eighth and seventy-ninth of eastern longitude. It is mountainous, and was some years ago ceded by the nizam to the British. It is included in the collectorship of Cuddapah. Gurrumcondah, the capital, is defended by a strong-built fort, but has been often taken and retaken by the Mahrattas, the Mysoreans, and the Nizams. By the latter it was ceded to the British in the year 1800.

GUSH, *v. n.* & *n. s.* Dutch, *gostelen*; Gothic, *geysa*, to pour forth. To flow, or rush, with violence; an emission of fluid in a large quantity on a sudden.

A sea of blood *gushed* from the gaping wound,
That her gay garments stained with filthy gore.
Spenser.

If a lung-vein be bursted, generally at the first cough a great *gush* of blood is coughed up. *Harvey.*

The gaping wound *gushed* out a crimson flood.
Dryden.

The covering of this abyss was broken asunder, and the water *gushed* out that made the deluge. *Burnet.*

Incessant streams of thin magnetick rays
Gush from their fountains with impetuous force,
In either pole, then take an adverse course.
Blackmore.

Line after line my *gushing* eyes o'erflow,
Led through a sad variety of woe. *Pope.*

On either hand the *gushing* waters play,
And down the rough cascade white dashing fall.
Thomson.

There's music in the sighing of a reed;
There's music in the *gushing* of a rill. *Byron.*

In a *gushing* stream
The tears rushed forth from her unclouded brain,
Like mountain mists at length dissolved in rain. *Id.*

GU'SSET, *n. s.* Fr. *gousset*. Any thing sewed on to cloth in order to strengthen it.

GUST, *n. s.*
GUST'ABLE, *adj.*
GUSTA'TION, *adj.*
GUST'FUL, *adj.*
GUS'TO, *n. s.*
GUS'TY, *adj.*

Fr. *goust*; Ital. *gusto*; Isl. *guster*; Lat. *gustus*. Sense of taste; height of sensual enjoyment; turn of fancy; a violent blast of wind,—written by Spenser for jousts and tournaments. Gustable and gustation signify the quality of taste, or act of tasting. Gusto a relish; gusty weather, is stormy; tempestuous.

For jolly knight he seemed, and fair did sit,
As one for knightly *gusts* and fierce encounters fit.
Spenser.

She led calm Henry, though he were a king,
As doth a sail, filled with a fretting *gust*,
Command an argosie to stem the waves. *Shakspeare.*

You may as well forbid the mountain pines
To wag their high tops, and to make a noise,
When the are fretted with the *gusts* of heaven.
Id.

To kill, I grant, is sin's extremest *gust*;
But, in defence, by mercy 'tis made just. *Id.*

Once upon a raw and *gusty* day,
The troubled Tyber chafing with his shores.
Id. Julius Cæsar.

Presently come forth swarms and volleys of libels, which are the *gusts* of liberty of speech restrained.
Bacon's Henry VII.

This position informs us of a vulgar errour, terming the gall bitter; whereas there is nothing *gustable* sweeter. *Harvey.*

As when fierce northern blasts from the Alps descend,
From his firm roots with struggling *gusts* to rend
An aged sturdy oak. *Denham.*

They, fondly thinking to allay
Their appetite with *gust*, instead of fruit
Chewed bitter ashes, which the offended taste
With spattering noise rejected. *Milton.*

The gullet and conveying parts partake of the nerves of *gustation*, or appertaining unto sapor.
Browne.

Whether his valour they so much admire,
Or that for cowardice they all retire,
As heaven in storms they call in *gusts* of state,
On Monk and parliament yet both do hate.
Marvell.

We have lost, in a great measure, the *gust* and relish of true happiness. *Tillotson.*

Part stay for passage, 'till a *gust* of wind
Ships o'er their forces in a shining sheet. *Dryden.*

Where love is duty on the female side,
On theirs mere sensual *gust*, and sought with surly pride. *Id. Fables.*

My sight, and smell, and hearing were employed,
And all three senses in full *gust* enjoyed. *Dryden.*

The principal part of painting is to find what nature has made most proper to this art, and a choice of it may be made according to the *gust* and manner of the ancients. *Id.*

In reading what I have written, let them bring no particular *gusto* along with them. *Id.*

Old age shall do the work of taking away both the *gust* and comfort of them. *L'Estrange.*

Pardon a weak distempered soul, that swells
With sudden *gusts*, and sinks as soon in calms,
The sport of passions. *Addison's Cato.*

Pleasant *gustes* gratify the appetite of the luxurious.
Denham.

Destroy all creatures for thy sport or *gust*,
Yet cry, if man's unhappy, God's unjust. *Pope.*

What he defaults from some dry insipid sin, is but to make up for some other more *gustful*.
Decay of Piety.

GUSTAVIA, in botany, a genus of the polyandria order, and monadelphia class of plants: CAL. none; the petals are very numerous; the berry multilocular: SEEDS appendaged. Species two; fine tall trees of Surinam and Guiana.

GUSTAVUS I. king of Sweden, son of Eric Vasa, duke of Gripsholm. Christian II. king of Denmark, having made himself master of Sweden, confined Gustavus at Copenhagen; but he, making his escape, wandered long in the forests, till, the cruelties of the tyrant having occasioned a revolution, he was first declared governor of Sweden, and then, in 1513, elected king. He introduced Lutheranism into his dominions, and died in 1560. See SWEDEN.

GUSTAVUS ADOLPHUS, THE GREAT, king of Sweden, was born at Stockholm in 1594, and succeeded his father Charles IX. in 1611. He espoused the cause of the Protestants in Germany, who were oppressed by Ferdinand I. He was a great warrior, and gained many victories (see SWEDEN), but was killed in the battle of Lutzen, where his troops got the victory, and defeated two of the emperor's armies, in November, 1632.

GUSTAVUS III. See SWEDEN.

GUSTROW, a walled town of Mecklenburg-Schwerin, in the principality of Wenden, situated on the Nebel. It has six gates, a castle, and about 6000 inhabitants. Here are several breweries and brandy distilleries: sixteen miles south of Rostock, and twenty-nine east of Wismar.

GUT, *n. s.* & *v. a.* } Germ. *kutteln*; Goth. *guid*; Scot. *kete*. A long membranous canal reaching from the stomach to the anus, called intestines; the stomach; figuratively used for gluttony: to gut is to eviscerate; to draw; to plunder of its contents: a guttler one who feeds luxuriously; a greedy eater or gormandiser. Guzzle has principal reference to greediness in drinking; to swallow with immoderate gust.

GUT'TLE, *v. a.* & *v. n.*
GUT'TLER, *n. s.*
GUZ'ZLE, *v. n.*, *v. a.* & *n. s.*

God for his manace him so sore smote,
With invisible wound, ay incurable,
That, in his *guttes*, carfe it so and bote,
That his peines weren importable;
And certainly the wreche was resonable,
For many a mannes *guttes* did he peine.
Chaucer. The Monkes Tale.

This lord wears his wit in his belly, and his *guts* in his head. *Shakspeare. Troilus and Cressida.*

A viol should have a lay of wire-strings below, close to the belly, and then the strings of *guts* mounted upon a bridge, that by this means the upper strings stricken should make the lower resound.
Bacon's Natural History.

The fishermen save the most part of their fish: some are *gutted*, splitted, powdered, and dried.
Carew's Cornwall.

Apicius, thou did'st on thy *guts* bestow
Full ninety millions; yet, when this was spent,
Ten millions still remained to thee; which thou,
Fearing to suffer thirst and famishment,
In poisoned potion drankest.
Hakewill on Providence.

And crammed them 'till their *guts* did ake,
With cawdle, custard, and plum-cake. *Hudibras.*

Well seasoned bowls the gossip's spirits raise,
Who while she *guzzles* chats the doctor's praise.
Roscommon.

In Nero's arbitrary time,
When virtue was a guilt, and wealth a crime,
A troop of cut-throat guards were sent to seize
The rich men's goods, and *gut* their palaces.
Dryden.

With false weights their servants' *guts* they cheat,
And pinch their own to cover the deceit. *Id.*

His jolly brother, opposite in sense,
Laughs at his thrift; and, lavish of expence,
Quaffs, crams, and *guttles* in his own defence. *Id.*

They fell to lapping and *guzzling*, till they burst themselves. *L'Estrange.*

The fool spit in his porridge, to try if they'd hiss: they did not hiss, and so he *guttled* them up, and scalded his chops. *Id.*

Tom Brown, of facetious memory, having *gutted* a proper name of its vowels, used it as freely as he pleased. *Addison.*

The intestines or *guts* may be inflamed by any acrid or poisonous substance taken inwardly.
Arbuthnot on Diet.

GUTHALUS, or GUTTALUS, in ancient geography, is thought to be the Viardus of Ptolemy; now called the Oder.

GUTHRIE (William), was born in 1620, at Pitforthy, in Angus. He was educated at St. Andrews for the Scotch kirk, and in 1644 was placed as minister in the parish of Finwick, but after holding his preferment twenty years, was ejected as a nonconformist. He wrote the Christian's great Interest, still held in esteem. His death took place in 1665.

Another WILLIAM GUTHRIE, who has been confounded with the above, was born at Breichen, in the same county, in 1701, or 1708; and, after passing through a course of study at Aberdeen, quitted his native country in consequence of a love affair, and commenced author in London. Here he published a History of England, in 3 vols. folio; A Translation of Quintilian, in 2 vols. 8vo.; as also one of some of Cicero's works. The Friends, a novel, 2 vols.; and Remarks on English Tragedy, 8vo. The Geographical Grammar, which goes under his name, is said to have been compiled by Knox, a bookseller in the Strand. A History of Scotland in 10 vols.; a History of the Peerage, 4to.; and a Universal History, in 13 vols., are also ascribed to him. Mr. Guthrie finally obtained a pension, and a commission of the peace for Middlesex. He died in 1770.

GUTTA, *n. s.* a Latin term for drop.

GUTTÆ. See ARCHITECTURE.

GUTTÆ ANGLICANÆ, English drops, a chemical preparation esteemed of great virtue against vapors and lethargic affections, and purchased a £5000 by king Charles II. from the inventor Dr. Goddard. It is a spirit drawn by the retort from raw silk, and rectified with an essential oil.

GUTTA ROSACEA, in medicine, a red or pimpled face; a distemper, which, though not always owing to hard drinking, is most incident to tipplers.

GUTTA SERENA, a disease in which the patient, without any apparent fault in the eye, is deprived of sight. See MEDICINE.

GUTTATED, *adj.* } Latin *gutta*, *guttula*.
GUT'TULOUS, *adj.* } Besprinkled with drops, or in the form of a drop.

Ice is plain upon the surface of the water, but round in hail, which is also a glaciation, and figured in its *guttulous* descent from the air.
Browne's Vulgar Errours.

GUTTENBURG, or GUTTEMBURG (John), one of the reputed inventors of the art of printing, was born at Mentz, in 1400, of wealthy parents. In 1427 he was at Strasburgh, as a merchant; but returned to Mentz in 1430, and, between that time and 1439, appears to have made some trials of printing with metal or other types. In 1446 he entered into partnership with Fust, the result of which was the publication of the celebrated Bible of 637 leaves, the first considerable specimen of printing with metal types. John Guttenberg died in 1467.

GUTTER, *n. s.* & *v. a.* } Lat. *guttur*, *gutturalis*. A passage for water; a longitudinal hollow: the verb signifies to drain or cut in hollows. Guttural is descriptive of sounds pronounced with the throat.
GUT'TURAL, *adj.*
GUT'TURALNESS, *n. s.*

Be as be maie; for ernest or for game,
He shall awake, and rise, and go his waie
Out at this *gutter*, er that it be daie.
Chaucer. Legende of Gode Women.

My cheeks are *guttered* with my fretting tears.
Sandys.

Tempests themselves, high seas, and howling winds,
The *guttered* rocks, and congregated sands,
Traitors ensteeped to clog the guiltless keel,
As having sense of beauty, do omit
Their mortal natures, letting safe go by
The divine Desdemona. *Shakspeare. Othello.*

The Hebrews have assigned which letters are labial, which dental, and which *guttural*. *Bacon.*

In attempting to pronounce the nasals, and some of the vowels spiritally, the throat is brought to labour, and makes that which we call a *guttural* pronunciation.
Holder.

First in a place, by nature close, they build
A narrow flooring, *guttered*, walled, and tiled.
Dryden.

These *gutter* tiles are in length ten inches and a half. *Moxon.*

Rocks rise one above another, and have deep *gutters* worn in the sides of them by torrents of rain.
Addison on Italy.

GUTTY, in heraldry, a term used when any thing is charged or sprinkled with drops. In blazoning, the color of the drops is to be named.

GUTWORT, *n. s.* Gut and wort. An herb.

GUY, *n. s.* From guide. A rope used to lift any thing into the ship.

Guy, in ships, is a large slack rope, extending from the head of the main-mast to the head of the fore-mast, and having two or three large blocks fastened to the middle of it, to sustain the tackle used to hoist in and out the cargo of a merchant ship.

Guy (Thomas), an eminent bookseller, son of a coal-dealer in Southwark. He commenced business about 1668 with a stock of £250. The English bibles being then very badly printed, Mr. Guy contracted with the university of Oxford for their privilege of printing them, and carried on a great trade in them for many years. Thus he began to accumulate money, and being a single man, and very penurious, he daily increased his store. The bulk of his fortune, however, was acquired by purchasing seamen's tickets during queen Anne's wars, and South Sea stock, in 1720. It is said that at one time he was about to marry his maid-servant, and that it was only her extravagance in one instance induced him to alter his intentions. The girl looking on the paviors at work, near his door, remarked a broken place that they had not repaired; when they told her that Mr. Guy had directed them not to go so far. 'Well,' she said, 'do you mend it, and tell him I bade you.' But she had presumed too much on her influence over her careful lover, with whom a few extraordinary shillings expense turned the scale against her; he renounced his matrimonial scheme, and commenced a builder of hospitals. He was seventy-six years of age when he formed the design of building the hospital which bears his name, and lived to see it roofed in; dying in 1724. The charge of erecting this vast pile amounted to £18,793, and he left £219,499 to endow it. He also erected an alms-house with a library at Tamworth in Staffordshire, for which he was representative in parliament, for fourteen poor men and women; and left £125 a-year for their pensions.

GUYON (J. M. de la Mothe.) See Mothe.

GUYTON Morveau. See Morveau.

GUZ, an Indian measure, equal to one yard English.

GUZMAN (Dominic de), founder of the Dominican order of monks, was born at Calaroga in Old Castile, 1170. He preached against the Albigenses, when pope Innocent III. made a crusade against that unhappy people: and was inquisitor in Languedoc, where he founded his order, which was confirmed by the Lateran council in 1215. He died at Bologna in 1221, and was canonised. See Dominicans.

GYBE, *n. s.* & *v. a.* See Gibe.

The vulgar yield an open ear,
And common courtiers love to *gybe* and fleer.
Spenser.

Ready in *gybes*, quick answered, saucy, and as quarrellous as the weazel. *Shakspeare. Cymbeline.*

GYBING, the act of shifting any boom sail from one side of the mast to the other. By a boom sail is meant any sail whose bottom is extended by a boom, the fore-end of which is hooked to its respective mast; so as to swing occasionally on either side of the vessel, describing an arch, of which the mast will be the centre. As the wind or the course changes, it becomes necessary to change the position of the boom, with its sail, which is accordingly shifted to the other side of the vessel, as a door turns upon its hinges. The boom is pushed out by the effort of the wind upon the sail, and is restrained in a proper situation by a strong tackle communicating with the vessel's stern, called the sheet. It is also confined on the fore part by the guy.

GYERGYO, or Szent Miklos, a market-town of Transylvania, the chief place of the district of Esik. The Armenians, who form the chief part of the population, carry on some manufactures of ornamental works of leather. Long. 25° 36′ E., lat. 46° 39′ N.

GYGES, a Lydian, to whom Candaules, king of the country, showed his wife naked. See Lydia. According to Plato, Gyges descended into a chasm of the earth, where he found a brazen horse, whose sides he opened, and saw within the body the carcase of a man, from whose finger he took a brazen ring. This ring, when he put it on his finger, rendered him invisible; and by means of it he introduced himself to the queen, murdered her husband, married her, and usurped the crown of Lydia!

GYMNASIARCHA, in antiquity, the director of the gymnasium. He had two deputies under him; the Xystarcha, and the Gymnastes.

GYMNAS'TICALLY, *adv.* } Fr. *gymnique*,
Gymnas'tic, *adj.* } *gymnastique*; Gr.
Gym'nic, *adj.* } γυμνίκος, γυμναστικος. Pertaining to athletic exercise; consisting of leaping, wrestling, running, throwing the dart, or quoit: athletically made.

The country hath his recreations, the city his several *gymnicks* and exercises, may-games, feasts, wakes and merry meetings to solace themselves.
Burton's Anatomy of Melancholy.

Have they not sword-players and every sort
Of *gymnic* artists, wrestlers, riders, runners?
Milton.

Such as with agility and vigor are not *gymnastically* composed, nor actively use those parts. *Browne.*

The Cretans wisely forbid their servants *gymnasticks* as well as arms; and yet your modern footmen exercise themselves daily, whilst their enervated lords are softly lolling in their chariots. *Arbuthnot.*

GYMNASTICS. From γυμνος, naked, because the ancient exercises of this kind were performed naked; a modern name for certain exercises ancient and modern, which have been thus distinguished. The ancient gymnasium was little more than a school for warriors, those exercises only being encouraged, the advantages of which were seen in the field: hence boxing and the pancratium fell into disrepute, solely because the corpulence they encouraged was injurious to the military character. Thus Plutarch says, 'It would take three shields to cover a pugilist;' and Cato enquires, 'Of what service can a man be to his country who is nothing but belly?' The modern gymnasium has no such pretensions: in it the arts of war are not cultivated; but the manly exercise of the limbs, the consequent vigor of the muscles, and the health and robustness necessarily ensuing, are its main objects. This article, therefore, naturally divides itself into, I. The History of Gymnastics, ancient and modern. II. The more particular description of modern Gymnastic exercises.

PART I.

HISTORY OF GYMNASTICS.

With regard to the history of gymnastic exercises, their origin, it is evident, must be nearly coeval with the first congregation of men into societies. At that time, when agility and strength were the principal requisites of a warrior, when leaping, hurling the javelin, racing, wrestling, &c., were exercises which alone would fit men for the field, enable them to repel the attacks of their neighbours, or in turn to become themselves the aggressors; when the defence of their own property, or the seizure of that of others, was the employment of a principal part of their lives, the gymnastic art would undoubtedly occupy a prominent place in the education of youth. Accordingly we find, the elders of those primitive governments soon instituted periodical games; they gave prizes and honors to the conquerors, and excited in every possible way the emulation of the young men, till the Olympic games, originally the periodical race of four brethren, in process of time became the occupation of days, the data by which time was reckoned, and the cause of war between celebrated cities and even entire nations. Almost all the early writers notice the ancient games of the gymnasium, and among the first are those celebrated at the funeral of Patroclus, as recorded by Homer in the twenty-third book of the Iliad. Even then the art wanted but little of perfection, for we find that the Greeks had not only the simple footrace, and the manly wrestling-match, but also the chariot-race, the combats of the cestus, and of the sword, hurling the discus and the javelin, and exercising with the bow; nor did Ulysses or Tydides think it beneath them to join in the combat or the race. Not long after, these exercises were applied to the medical art. According to Plato, one Herodicus, a little prior to Hippocrates, was the first who introduced them into physic; and his successors, convinced of their usefulness, continued the practice. Hippocrates has given instances of it, where he treats of exercise in general, and of the particular effects of walking, with regard to health; also of the different sorts of races on foot or horseback; leaping, wrestling, the exercise of the suspended ball, chironomy, unctions, frictions, rolling in the sand, &c. But, as physicians did not adopt all the gymnastic exercises in their practice, they were divided between them and the masters of martial and athletic exercises, who kept schools, the number of which greatly increased in Greece; and gymnasia, places appropriated solely to these exercises, soon made their appearance in the principal cities. Lacedæmon was the first place where they were built, and three soon after were erected at Athens. According to Vitruvius, the gymnasia were a knot of buildings united, sufficiently capacious to hold many thousands of people at once; and having room for philosophers, and the professors of the sciences, to read their lectures; and wrestlers, dancers, and others, to exercise at the same time. They consisted of twelve parts, viz. 1. The exterior porticos, where the philosophers, rhetoricians, mathematicians, and physicians, read public lectures, and where they also disputed and rehearsed their performances. 2. The ephebium, where the youth assembled very early, to exercise in private without any spectators. 3. The coryceum, apodyterion, or gymnasterion, a kind of wardrobe, where they were stripped, either to bathe or exercise. 4. The elæothesium, alipterion, or unctuarium, appointed for the unctions, which either preceded or followed the use of the bath, wrestling, pancratia, &c. 5. The conisterium or conistra, in which they covered themselves with sand or dust, to dry up the oil or sweat. 6. The palæstra, properly so called, where they practised wrestling, the pugillate, pancratia, and other exercises. 7. The sphæristerium or tenniscourt, reserved for exercises wherein they used balls. 8. Large unpaved alleys, which comprehended the space between the porticos and the walls wherewith the edifice was surrounded. 9. The xysti or porticos for the wrestlers in winter or bad weather. 10. Other xysti or open alleys, for fine weather, some of which were quite open, and others planted with trees. 11. The baths, consisting of several different apartments. 12. The stadium, a large space of a semicircular form, covered with sand, and surrounded with seats for the spectators.

The principal gymnastic exercises of the ancients were five in number. They began with the *foot-race* (δρομος), which was the most ancient and in the greatest esteem, as it enabled the warrior to make a sudden assault or a quick retreat; and Homer, therefore, constantly entitles his hero Achilles 'πόδας ὠκὺς, swift of foot.' David also, in his eulogy on Saul and Jonathan, exclaims, 'They were swifter than eagles, they were stronger than lions.' The victorious racer gave his name to the Olympiad. Sometimes they ran in armour, and were then called ὁπλιτοδρόμοι.

—Αλμα, *or the exercise of leaping*, ranked second, and was generally performed with oval weights of lead, having holes in them through which the leapers put their fingers, and by these they poised and assisted forward their bodies. The proficiency of some of these was very great: Pausanias assures us, that Phaulus of Crotona leaped fifty-two feet.—The *hurling of the discus* (δισκος), a quoit of stone, brass, or iron, was among the most ancient of these sports. It was thrown under the hand as the quoit is now in England, and the object was to hurl it further than another could do.

The *wrestling* of the ancients (παλη) required equal strength and agility. They never encountered till all their joints had been fomented and suppled with oil to prevent strains, and to elude the grasp of their antagonists. After having anointed their whole bodies, they rolled themselves in sand to prevent excessive perspiration, and were then considered ready to enter the lists. The victory was adjudged to him who had given his antagonist three falls. Πυγμαχία, *or the exercise of boxing*, was the last both in order and in estimation. As well as a certain fleshiness of arm, and stoutness, if not corpulence of body, to increase the force of their own blows and to lessen the injury of their antagonist's, a certain regimen was requisite, regular sleep, rest, and provisions, which but ill prepared the combatants for the privations of war. In this exercise also the victory was never decided till one of the parties fairly yielded, either by holding up a finger, or demanding quarter. This, however, seemed so contrary to the obstinate character of Grecian valor, that one of the parties was generally slain; and the laws of Sparta absolutely prohibited her citizens from ever engaging in it, as a Spartan was 'taught to disdain saving his life by yielding to his opponent, and the life of a Greek was not to be sacrificed to the amusement of an hour.'

At first they used never to box but with naked fists and arms, afterwards they covered the wrists and hands with leather thongs, and at length fought with their arms and fists perfectly cased in leather, loaded with plummets of lead. These tremendous gloves were called Cæstus, and the following description of those of Eryx, the brother of Acestes, king of Sicily, sufficiently proves the direful nature of the combat:—

> In medium geminos immani pondere cæstus
> Projecit; quibus acer Eryx in prælia suetus
> Ferre manum, duroque intendere brachia tergo.
> Obstupuere animi; tantorum ingentia septem
> Terga boum plumbo insuto ferroque rigebant.
> *Æneid* lib. v. l. 401.

> ——————————He threw
> Two ponderous gauntlets down in open view,
> Gauntlets, which Eryx wont in fight to wield,
> And sheath his hands with in the listed field.
> With fear and wonder seized, the crowd beholds
> The gloves of death, with seven distinguished folds
> Of tough bull-hides: the space within is spread
> With iron, or with loads of heavy lead. *Dryden.*

The *Pancratium* also (Gr. παγκρατιον) is worthy of notice. It was a contest in which both wrestling and boxing were united, and the combatants often threw themselves upon the ground, and continued the fight by biting, scratching, pinching, kicking, or any other method of annoying their antagonists. This was continued till one of them yielded; and it often happened that he who in wrestling would have conquered, was, in the Pancratium, compelled to give in. In the time of Homer all these exercises were performed in drawers, which, indeed, were not laid aside before the thirty-second Olympiad. One Orseppus, a wrestler, is said to have been the first who introduced the practice of contending naked: for, having been worsted by his drawers entangling him, he threw them aside, and the rest afterwards imitated him.

From the Greeks the Romans derived these exercises, and improved them to the highest degree of magnificence. But the declension of the empire involved the ruin of the arts, and, among others, that of gymnastics. The attempts to revive and improve them, at the close of the last century, it is now our business to notice.

Germany was the first country that attempted the revival of these ancient and manly sports. At Schnepphenthal, near Gotha, Salzman first framed a course of gymnastics, which was improved and arranged by Gutsmuth, who published the first modern treatise on the subject in 1793. In Denmark the government, intent on a plan of public education, issued an order that a piece of ground should be allotted to every public school for the practice of these exercises; and, in 1804, no less than sixteen of these establishments were formed in that kingdom. In 1810 a gymnasium was erected at Berlin by the Prussian government, and placed under the direction of M. Jahn, by whose exertions several similar institutions have been formed in various parts of Prussia and Germany. In fact, no large academy is now considered perfect in those countries which does not include a course of gymnastics in its system. In 1817 appeared Gutsmuth's complete System of Gymnastic Exercises, to which, in the course of the article, we shall find it necessary to refer.

Early in the spring of 1826 a meeting was held in London at the Mechanics' Theatre, Southampton Buildings, Dr. Gilchrist in the chair, to consider of the practicability of establishing a London Gymnastic Society. Professor Voelker of Germany came forward and offered to give his instructions gratuitously, and another gentleman present advanced the money for the erection of the apparatus. A society was soon formed, and they purchased a piece of ground on the higher part of Spa Fields, near Pentonville. From its elevation it is dry, and capacious enough to accommodate about 300 gymnasts. These are arranged in classes according to their size and capacity; and the various poles, &c., are constructed of different sizes accordingly. At the ringing of a bell each class changes the exercise in which it has been previously engaged, and begins a new one, according to a plan prescribed by the director. The success of the undertaking has, we think, exceeded even the expectation of the most sanguine of the projectors. In about two months they numbered 700 pupils; and it was soon seen that similar places might be erected with advantage in various parts of the

suburbs of London. Similar societies have been formed at Hackney, Bethnal Green, Knightsbridge, &c.

PART II.

DESCRIPTION OF THE MODERN GYMNASTIC EXERCISES.

The ancient and modern gymnastics must not be confounded. The present professors of the art entitle it 'a revival of the ancient exercises of the Greeks;' but he who should visit Pentonville with the hope of watching the striving of the dusty wrestler, the combat of the Pancratium, or the hurling of the discus, will indeed be disappointed. He will see but little in the 'leaping stand,' or the 'climbing scaffold,' of the London gymnasia to remind him of the Grecian academy or the Roman amphitheatre. The ancient gymnastics fitted men for the field, and for the fatigues of war—the moderns profess only to improve the constitution; to enable men to encounter without injury the close air of the counting house or the drawing room; to endure without trouble the fatigues of a city life. To strengthen all the muscles of the body being their object, the exercises are necessarily of different kinds. The principal ones are six in number: we commence with the most simple and natural.

Running

As it is evidently necessary to the performance of several of the other exercises, the young gymnast must particularly endeavour to acquire a swift and easy method of running. The most common fault is the taking too short and swift steps, which soon fatigue, and the progress is not so great in proportion as when the steps are longer though less quickly performed. It is also more difficult to breathe in time with such steps, and the runner consequently sooner loses his wind. About 350 or 400 feet is the best length for a course; though for very young or weak pupils 250 may be found sufficient, and when a party first begin this exercise, they should start in the military 'double-quick time.' This will prevent strains, either from the violence of starting or the sudden exertion of the race, for which the body might be unprepared. Indeed sufficient attention has never been paid to swift running in time, and consequently a line can scarcely be at all kept by persons when running with only a moderate degree of swiftness.

Leaping.

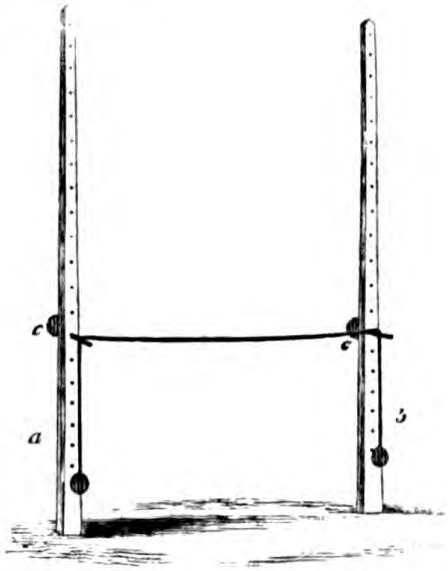
Leaping is the best bodily exercise for the lower members, and therefore occupies a very prominent place in all modern gymnastics. In order, however, to practise this with ease, initiatory exercises are often necessary. We frequently meet with persons of considerable muscular strength, who, from their habits of life, are so sluggish and unwieldy that they know not how to exert it. The ploughman, who with ordinary fatigue could guide the plough all day through the hardest furrows, would be unable probably to leap a ditch to save his life. These preliminary exercises are hopping, and striking the lower part of the back with the feet and the knees against the breast. In hopping care should be taken to make the steps short and quick, keeping the arms crossed and the head erect. After these exercises have in some degree brought the muscles of the thigh into play, and rendered the knee-joints sufficiently flexible, the pupil may begin leaping. Of leaps there are several different kinds, viz. the long leap with or without a run, the high leap with or without a run, the deep leap, or the same leaps with a pole, all of which are very differently performed.

1. *The long leap without a run* is an excellent exercise, particularly for the muscles of the feet, calves, and thighs. It is performed merely by the elastic power of the feet, assisted by a swinging of the hands. The long leaps are best performed over a ditch about a foot deep, and increasing in breadth from one end to the other thus:—



taking care that the margin of one side, A, be composed of loose sand to the extent of about two feet and a half, in order that a slip in descending may not strain the feet of the leaper. The broadest end of the ditch need not exceed twenty feet, and the breadth should diminish gradually to about four and a half. Continued jumping from one end to another of a long piece of ground is also recommended as an excellent preparatory exercise.

2. *The high leap without a run.*—In order to practise the high leaps it is necessary to construct a leaping stand, which is generally made in the following manner:—Two upright posts, *a* and *b* in the diagram, are fixed in the ground at the distance of about twelve feet from each other, and having holes drilled in them at every inch for the insertion of the pegs *c*, *c*, over which a cord is kept extended by the two weights fastened to its extremities:—



The leap over the cord must always be made from the side of the stand, opposite to which the string is laid, in order that it may give way if struck by the feet. This stand therefore allows of leaping from one side only, and even then the weight often occasions the string to entangle the leaper, although his feet carry it off the pegs. A better stand may be made (if the leapers are not very numerous) with poles that shut up in three joints, one within the other, similar to some fishing-rods. These being drawn out to any required length, and supported in their position by means of small pegs, a thin light cane in place of the string is laid along the top of the two poles, which are slightly grooved to receive it. See plate II. GYMNASTICS, fig. 2. This will be found to fly off with the slightest touch, and never to embarrass the pupil: a circumstance worthy of consideration, as a fall when leaping to the height of eight or ten feet often produces serious injury. This stand may also be used with equal safety from either side; but the poles cannot be set so far asunder as in the other, it being difficult to procure a thin cane that is straight above five feet in length. In order to learn the high leap without a run, the pupil is directed to place himself at about the distance of four feet from the stand, and having excited the elastic power of his feet by a preliminary leap of about three feet, he springs over the cane. The two leaps should be made very light, and follow one another instantaneously, that the force of the first spring be not lost. It is better for young pupils to begin this with the cane no higher than the knees; but many persons will spring over a cord at the height of the pit of the stomach.

3. *The deep leap* is a spring from one side of a ditch to the other, which is considerably lower, or indeed from any high place to a low one, and is best performed with the assistance of the hands. By contriving to throw himself partly on his hands, and let the weight of his descent thus gradually pass over to the feet, the gymnast will soon be enabled to leap from a height, that to an unpractised eye would appear dangerous. By continual practise on the ladder of the climbing-stand (see plate I. GYMNASTICS), for instance, he will in time be enabled to leap with comparative ease from a two pair of stairs window, and thus have a considerable advantage in case of fire over the idle or the sedentary man, to whom a leap from the first floor would be often fatal. For exercise this leap is often performed without the assistance of the hands, and great care must then be taken to fall on the ball of the toes, instead of the heels, as otherwise a very considerable shock may be given to the body. *Dropping* also from a height is often connected with this exercise, and great care must then be taken to keep the knees slack, and the body rather forward in the descent. These exercises must on no account be performed after a meal, as the shock on a full stomach may sometimes occasion hernia.

4. *The long leap with a run* is to be practised over the ditch shown above, and the run should never exceed twenty-five feet. The steps should be small, and increase in rapidity as they approach the leaping-place; long steps are to be particularly avoided, as they considerably diminish the force of the run. As it is evident that the spring can be finally made with only one foot, and most persons leap best with the right, some little practise is required to enable the leaper to so far measure the distance with his eye, as to bring that foot forward to leap with. When descending, the feet should be kept close together, the knees slack, and the chest well thrown forward, and on arriving at the ground a light spring should be again made to lessen the shock of the fall; though if the opposite margin be formed of loose sand to the depth of about three feet, as before recommended, no shock can be felt. Many young leapers, however, by throwing the feet too forward, fall backward on coming to the ground, or by separating the legs give to one of them alone the whole weight of the descent, and thereby are apt to receive some unpleasant strains. But, of all the faults of young beginners, the most common is that of endeavouring to hurl themselves along without leaping to a sufficient height: they thus come quickly to the ground, and generally fall on their faces by the strength of their own leap. A person who can leap three or four times the length of his body, may be said to be a good leaper, though he will remain as a gymnast far behind Phaulus of Crotona, who leaped fifty-two feet at the Olympic games.

5. *The high leap with a run* may be performed either by bending the legs under the body as close as possible, immediately on leaving the ground; or by throwing the left leg over the cane, and drawing the right sharply up to the bottom of the back; or by throwing them together, either to the right or left side, to prevent their catching against the obstacle over which you leap. The run, &c., is the same as in the preceding exercise; and many leapers will in this manner clear a wall considerably above their own height. At Greenwich this exercise is combined with a game of carrying off a ring on the top of a sword while in the act of leaping, and this accustoms the pupils to spring with great precision and coolness.

6. *The long leap with a pole.*—We are now come to leaping with a pole, which has been said to be '*vaulting*, in which the leaper, instead of supporting himself by an intervening object, carries with him a pole, which he places in whatever spot he chooses.' This is, however, by no means correct; the support given by a wall, bar, or other fixed object over which you have to move, and on which the hands must be moved, bears but little resemblance to a moveable pole which swings with your body, and on which you in a manner hang. The pole should be from about six feet to ten, or even thirteen, feet long, and about two inches thick at the bottom, tapering to about an inch at the top: ash is the best wood, as fir, though more easily procured straight, is more liable to crack. This pole is held with the right hand about the height of the head, and the left a little higher than the hips. The run is the same as before, but the leap must be made with the left foot. The leaper then swings round to the right of the pole, making a turn, so that his body faces, on his reaching the opposite

bank of the ditch, the side from which he set out. The body should be kept near the pole, and the swing must be carefully given, lest, by pulling the pole in a direction lateral to the ditch, you should fall sideways into the ditch. The spring and the fixing of the pole must be made at the same moment, as otherwise the swing is not so strongly made; and, in proportion as he becomes more expert, the leaper may advance his hands higher up the pole, and thereby have a more powerful swing. The feet should be stretched out as far as possible to reach the opposite bank, and if this should be lower than the one from which the leap is taken, the hands should be slid down the pole while in the act of leaping. This exercise is very common in Lincolnshire, Cambridgeshire, and the other fen counties which abound with dykes; but it is there common to throw the body strongly against the pole, and, letting it pass between the legs, to ride over, as it were, upon it.

7. *The high leap with a pole* greatly resembles the preceding one, except that, the sweep being smaller, the hands must be more raised, and the legs quickly turned, to prevent their coming in contact with the cord. The left hand should grasp the pole at the same distance from the bottom that the cord is from the ground. The pole is not always fixed at the same distance in front of the stand, but further, in proportion to the height of the leap. The swinging upward is principally effected by the force of the spring as connected with the quick motion occasioned by the run, which, being suddenly checked by the fixing of the pole, changes its horizontal direction to one of a slanting ascent, and thus carries the body of the leaper over the cord or cane. At the same time the leaper must observe to fix the pole right before him, and not either to the right or left, as otherwise the force of the run will throw him from the pole. The best criterion of a good leap is, that the pupil descend in an equal balance to the ground, that is to say, he is not compelled to run backward to keep himself from falling, which is too often the case. The descent should take place on the balls of the toes, and the knees should be slackened to prevent any shock.

Vaulting, or the art of leaping over an object with the assistance of the hands, requires next to be attended to.—This is performed by placing the hands on the wall, bar, or gate, over or upon which you vault, and at the same time giving a spring; swinging yourself round, and descending with your face towards the object. The leaning of the hands not only gives direction to, but considerably assists the swing, and thereby augments the muscular power of the arms, shoulders, &c., as well as of the legs. In order that this exercise may be practised with ease and safety, wooden horses, whose sides and backs are commonly stuffed with wool, and covered with leather, are to be erected in the gymnasium. 1. The pupil places himself in front of the horse, makes one preparatory leap, and then, fixing both hands on it and springing up, throws his right leg over: the body is then suspended by the support of the hands, and descends gradually to the riding position. In order to dismount, the rider swings himself on his hands, first forward and then backward, and then, closing his feet, throws them both over to the ground. A person may soon learn to mount a horse of any size in this manner.

Vaulting over the horse ought to be frequently practised, as it is applicable in so many instances. With a short run a person may soon learn to throw himself over the height of his chest, and, by shifting the hands, over a very broad table. Vaulting on, in a standing position, is performed with a short run; the pupil then places his hands at a little distance from one another on the object, and, at the same time, leaping up, draws his knees forcibly towards his breast, so that the feet come up between the hands; the gymnast then, quitting the horse with his hands, stands upright. If he wish to seat himself sideways on the horse, he need only, instead of standing, continue to throw forward his feet, and he will be able to seat himself on the saddle; or, should he still continue his leap, he will go over the horse straight forward.

Swinging on the Bar.—This, though an exercise not so directly applicable to the accidents of active life as leaping, vaulting, or climbing, greatly augments the muscular power of the body, and must never be omitted in the gymnasium. Bars should therefore be erected similar to those shown in Plate III. Gymnastics, and if possible they should be under cover from the rain and the sun. In order to construct these stands, erect two strong posts (*a* and *b*, fig. 4), about six feet high and eighteen feet asunder, and on the top of them fix a thick transverse beam, rounded at the top to give a more easy grasp to the hand. Then fix three upright posts *c*, *c*, *c*, about five feet in height, and on them, in conjunction with the post *b*, fasten two other transverse poles *d*, *d*, at the distance of about three feet from one another. You will then have the single bar A, and the double bars B, as represented in the plate. The exercises on these bars are so various that we cannot be expected to describe them in detail. On the double bars the principal ones are performed, either by raising the body on the two hands as the pupil is represented doing, B, Plate III., or by swinging along them, or lowering and raising himself by degrees, by the strength of his arms only. On the single bar the most difficult is the seizing the bar with both the hands on the same side and raising the body by pulling upward, the feet being meanwhile closed and hanging down. This exercise is very fatiguing, and, though many persons will go through it nine or ten times successively, twenty times will tire the strongest man. Hanging by the arms and legs, or by the arms or legs alone, and swinging in different ways round the bar, are the other exercises on this bar. They should, indeed, never be neglected, as they greatly facilitate the gymnast's progress in the following exercise.

Climbing.—The uses and advantages of this art are too evident to need any particularisation. In order to practise it in all its varieties, different kinds of stands or scaffolds have been recommended. The best is recommended in a work entitled Instructions in all kinds of Gymnastic Exercises, by a Military Officer. Plate I. represents this stand, with all its appurtenances. It

is formed of two strong posts fixed firmly in the ground, about twenty feet high and about forty from each other. Over these is fastened the strong beam A B, to which are fastened the ropes, poles, &c. The mast *a* is also fixed in the ground, and to it two ladders *b*, *b*, are attached. To the great cross beam, A B, are fastened two poles *d*, *e*, two thick ropes *f*, *g*, and a rope ladder *h*. The standing place, *i*, is useful as a resting place, and to accustom the nerves to look down without fear from a considerable height. The first thing for pupils to attend to in climbing is to be able to ascend and descend the ladder quickly, without fear, and carrying up with them some burden. When they can easily do this they may begin to ascend and descend the inside of the ladder; this also being accomplished, let them endeavour to descend it with their hands only. The last exercise on the ladder is to ascend it with the hands, the feet mean while hanging loose; this indeed requires considerable exertion, for the whole weight of the body must not only be supported but raised by one arm only, while the other catches at the second step above the head. Climbing the rope ladder is much more difficult than is generally supposed, for, the bottom of the ladder hanging loose, a person unaccustomed to it receives no support from his feet, but rather trouble as they fly from under him and give his arms very strong jerks. By degrees, however, he learns to keep his feet stretched out, and thus to avail himself of their assistance. The gymnast may now begin to climb the upright pole; this is done by alternately holding on and raising the arms and legs, and requires nothing but a tight hold by the legs and a strong pull with the arms. On the slant pole it is more difficult, as the weight of the body depends more on the arms. Climbing the mast is still more difficult, as it cannot be grasped by the hands, and therefore the climber must lay fast hold of his left arm with his right hand, and his right arm with his left. The other methods of climbing the ropes, &c., are better learned by practice and actual inspection than any instructions, however detailed. See Plate I, GYMNASTICS.

WRESTLING is sometimes included in the gymnastic exercises, but to this it is our intention to give a separate article. See WRESTLING.

GYMNOPYRIS, in natural history, a name given by Dr. Hill to pyritæ of a simple internal structure not covered with a crust. See PYRITES. Of these there are only two species: 1. A green variously shaped kind. 2. A botryoid kind. The first is the most common of all the pyritæ, and appears under a great diversity of shapes. It is very hard and heavy, readily gives fire with steel, but will not at all ferment with aquafortis. The second is very elegant, its usual color is an agreeable pale green; but what most distinguishes it is, that its surface is always beautifully elevated into tubercles of various sizes, resembling a cluster of grapes.

GYMNOSPE'RMOUS, *adj.* *γύμνος* and *σπέρμα*. Having the seeds naked.

GYMNOSOPHISTS, Greek, *Γυμνοσοφιστης*, i. e. a naked philosopher A set of Indian philosophers, famous in antiquity, so called from their going naked. There were some of these sages in Africa; but the most celebrated of them were in India. They believed the immortality and transmigration of the soul: they placed the chief happiness of man in a contempt of the goods of fortune and the pleasures of sense, and gloried in having given faithful and disinterested counsels to princes and magistrates. It is said that when they became old and infirm, they threw themselves into a pile of burning wood, in order to prevent the miseries of an advanced age. One of them, named Calamus, thus burnt himself in the presence of Alexander the Great. Apuleius describes the gymnosophists thus:—'They are all devoted to the study of wisdom, both the elder masters and the younger pupils; and what to me appears the most amiable thing in their character is, that they have an aversion to idleness and indolence; accordingly, as soon as the table is spread, before the food be brought, the youths are all called together from their several places and offices, and the masters examine them what good they have done since the sun-rise: here one relates something he has discovered by meditation; another has learned something by demonstration; and those who have nothing to allege why they should dine, are turned out to work fasting.' The great leader of the gymnosophists, according to Jerome, was one Buddas, or Butta, who is ranked by Suidas among the Brahmins. He makes Buddas the preceptor of Manes the Persian, the founder of the gymnosophists.

The African gymnosophists dwelt upon a mountain in Ethiopia, near the Nile, without either house or cell. They did not form themselves into societies, but each had his private recess, where he studied and performed his devotions by himself. If any person had killed another by accident, he applied to these sages for absolution, and submitted to whatever penances they enjoined. They lived solely upon the fruits of the earth. Lucan ascribes to these gymnosophists several discoveries in astronomy.

The Indian gymnosophists dwelt in the woods, where they lived upon the wild products of the earth, and never drank wine nor married. Some of them practised physic, and travelled from one place to another; these were particularly famous for their remedies against barrenness. Some of them, likewise, pretended to practise magic, and to foretel future events.

GYMNOSPERMIA. See BOTANY.

GYMNOTUS, in ichthyology, a genus of fishes belonging to the order of apodes They have two tentacula at the upper lip: the eyes are covered with the common skin; there are five rays in the membrane of the gills; the body is compressed, and carinated on the belly with a fin. There are nine species, the most remarkable of which is the G. electricus, or electric eel, called by the French anguille tremblante. This fish is a native of the warmer regions of Africa and America, where it inhabits the larger rivers, and is particularly found in those of Surinam. In Africa it is said chiefly to occur in the branches of the river Senegal. It is a fish bearing a general resemblance to a large eel, though somewhat

thicker in proportion, and of a much darker color. It is usually seen in the length of three or four feet.

A very accurate description of this fish was given by Dr. Garden in the Philosophical Transactions of 1775, who had three of them in his possession.

'To catch the gymnoti with nets,' says Humboldt, 'is very difficult, on account of the extreme agility of the fish, which bury themselves in the mud like serpents. We would not employ the barbasco, that is to say, the roots of the piscidia erythrina and jacquinia armillaris, because, when thrown into the pool, they intoxicate or benum these animals. These would have enfeebled the gymnoti; the Indians therefore told us, that they would fish with horses. We found it difficult to form an idea of this extraordinary manner of fishing; but we soon saw our guides return from the savannah, which they had been scouring for wild horses and mules. They brought about thirty with them, which they forced to enter the pool. The extraordinary noise caused by the horses' hoofs makes the fish issue from the mud, and excites them to combat. These yellowish and livid eels, resembling large aquatic serpents, swim on the surface of the water, and crowd under the bellies of the horses and mules. A contest between animals of so different an organisation furnishes a very striking spectacle. The Indians, provided with harpoons and long slender reeds, surround the pool closely; and some climb upon the trees, the branches of which extend horizontally over the surface of the water. By their wild cries, and the length of their reeds, they prevent the horses from running away, and reaching the bank of the pool. The eels, stunned by the noise, defend themselves by the repeated discharge of their electric batteries. During a long time they seem to prove victorious. Several horses sink beneath the violence of the invisible strokes which they receive from all sides in organs the most essential to life; and, stunned by the force and frequency of the shocks, disappear under the water. Others, panting, with mane erect, and haggard eyes, expressing anguish, raise themselves, and endeavour to flee from the storm by which they are overtaken. They are driven back by the Indians into the middle of the water; but a small number succeed in eluding the active vigilance of the fishermen. These regain the shore, stumbling at every step, and stretch themselves on the sand, exhausted with fatigue, and their limbs benumbed by the electric shocks of the gymnoti.

'We obtained five large eels, the greater part of which were but slightly wounded. The temperature of the waters in which the gymnoti habitually live, is about 86° of Fahrenheit, and their electric force, it is said, diminishes in colder waters. The gymnotus is the largest of electrical fishes. I measured some that were from five feet to five feet three inches long; and the Indians assert, that they have seen them still longer. We found that a fish of three feet ten inches long weighed 12 lbs. The transverse diameter of the body was three inches five lines. The gymnoti of Cano de Bera are of a fine olive-green color. The under part of the head is yellow, mingled with red. Two rows of small yellow spots are placed symmetrically along the back, from the head to the end of the tail. Every spot contains an excretory aperture In consequence, the skin of the animal is constantly covered with a mucous matter, which, as Volta has proved, conducts electricity twenty or thirty times better than pure water. It is in general somewhat remarkable, that no electrical fish, yet discovered in the different parts of the world, is covered with scales. It would be temerity to expose ourselves to the first shock of a very large and strongly irritated gymnotus. If by chance you receive a stroke before the fish is wounded, or wearied by a long pursuit, the pain and numbness are so violent, that it is impossible to describe the nature of the feeling they excite. I do not remember having ever received from the discharge of a Leyden jar a more dreadful shock than that which I experienced by imprudently placing both my feet on a gymnotus just taken out of the water. I was affected the rest of the day with a violent pain in the knees, and in almost every joint.

'When Mr. Bonpland held it by the head, or by the middle of the body, while I held it by the tail, and, standing on the moist ground, did not take each other's hand, one of us received shocks, when the other did not feel. It depends upon the gymnotus to act toward the point where it finds itself the most strongly irritated. The discharge is then made at one point only, and not at the neighbouring points. If two persons touch the belly of the fish with their fingers, at an inch distance, and press it simultaneously, sometimes one, sometimes the other, will receive the shock. In the same manner, when one insulated person holds the tail, and another pinches the gills, or pectoral fin, it is often the first only by whom the shock is received. It did not appear to us, that these differences could be attributed to the dryness or dampness of our hands, or to their unequal conducting power. The gymnotus seemed to direct its strokes sometimes from the whole surface of its body, sometimes from one point only.

'On cutting a very vigorous fish through the middle of the body, the fore part alone gave me shocks. The shocks are equally strong, in whatever part of the body the fish is touched; it is most disposed, however, to dart them forth when the pectoral fin, the electrical organ, the lips, the eyes, or the gills are pinched. Sometimes the animal struggles violently with a person holding it by the tail, without communicating the least shock. Nor did I feel any when I made a slight incision near the pectoral fin of the fish, and galvanised the wound by the simple contact of two pieces of zinc and silver. The gymnotus bent itself convulsively, and raised its head out of the water, as if terrified by a sensation altogether new; but I felt no vibration in the hands which held the two metals. The most violent muscular movements are not always accompanied by electric discharges. The action of the fish on the organs of man is transmitted and intercepted by the same bodies that transmit and intercept the electrical current of a conductor charged by a Leyden vial, or Volta's pile. In employing very delicate electrometers in a

thousand ways, insulating them on a plate of glass, and receiving very strong shocks, which passed through the electrometer, I could never discover any phenomenon of attraction or repulsion The same observation was made by Mr. Fahlberg at Stockholm. This philosopher, however, has seen an electric spark, as Watsh and Ingenhousz had done before him at London, by placing the gymnotus in the air, and interrupting the conducting chair by two gold leaves pasted upon glass, and a line distant from each other. No person, on the contrary, has ever perceived a spark issue from the body of the fish itself. We have irritated it for a long time during the night, at Calabozo, in perfect darkness, without observing any luminous appearance.'

GYNÆCEUM, in antiquity, the apartment of women, a separate room in the inner part of the house, where they employed themselves in spinning, weaving, and needle-work.

GY'NECOCRACY, *n. s.* Gr. *γυναικοκρατία*; Fr. *gynecocratie*. Petticoat government; female power.

GYNÆCOCRATUMENI, from *γυνη*, woman, and *κρατημενος*, vanquished, an ancient people of Sarmatia Europæa, inhabiting the east banks of the Tanais, near its influx into the Palus Mæotis; thus called because they were under the dominion of women. F. Hardouin, in his notes on Pliny, says, they were thus called, because, after a battle which they lost against the Amazons on the banks of the Thermodoon, they were obliged to become the husbands of the Amazons. See AMAZONS.

GYNANDRIA, from *γυνη*, a woman, *ανηρ*, a man. The twentieth class in the sexual system, consisting of plants with hermaphrodite flowers, in which the stamina are placed upon the style, or a pillar-shaped receptacle, resembling a style, which rises in the middle of the flower, and bears both the stamina and pointal. See BOTANY.

GYONGYOS, a large well-built town of Hungary, situated on the side of a mountain. The inhabitants, about 8000, manufacture woollen and leather, and trade in wine and cheese, also to a great amount in alum brought from the works of Parad, a small town at seven miles distance. Twenty-one miles W.S.W. of Erlau.

GYPSIES, or Egyptians, an outlandish tribe of vagabonds, called Bohemians in France, and Gittanos in Spain; who, disguising themselves in uncouth habits, smearing their faces and bodies, and speaking a canting language, wander up and down, under pretence of telling fortunes, curing diseases, &c., abuse the people, trick them out of their money, and steal all they can come at. They are a strange kind of commonwealth of wandering impostors and jugglers, who made their first appearance in Germany about the beginning of the sixteenth century. Munster, who is followed and relied upon by Spelman, fixes the time of their appearance to 1417; but, as he owns that the first whom he ever saw were in 1529, it is probably an error of the press for 1517; especially as, when sultan Selim conquered Egypt in 1517, several of the natives refused to submit to the Turkish yoke, and revolted under one Zinganeus; whence the Turks called them Zinganees; but, being at length surrounded and banished, they agreed to disperse in small parties all over the world, where their supposed skill in the black art gave them a universal reception in that age of superstition and credulity. In a very few years they gained such a number of idle proselytes (who imitated their language and complexion), that they became troublesome, and even formidable, to most of the states of Europe. Hence they were expelled from France in 1560, and from Spain in 1591. And the government of England took the alarm much earlier; for in 1530 they are described by stat. 22 Hen. VIII. c. 10, as 'an outlandish people calling themselves Egyptians, using no craft nor feat of merchandise, who have come into this realm, and gone from shire to shire and place to place, in great companies, and used great, subtle, and crafty means to deceive the people; bearing them in hand that they by palmistry could tell men's and women's fortunes; and so many times by craft and subtlety have deceived the people of their money, and also have committed many heinous felonies and robberies.' Wherefore they are directed to avoid the realm and not to return under pain of imprisonment and forfeiture of their goods and chattels; and, upon their trials for any felony which they may have committed, they shall not be entitled to a jury de medietate linguæ. And afterwards it is enacted, by stat. 1 & 2 Ph. & Mary c. 4, and 5 Eliz. c. 20, that, if any such persons shall be imported into the kingdom, the importer shall forfeit £40. And if the Egyptians themselves remain one month in the kingdom, or if any person being fourteen years old, whether natural born subject or stranger, who has been seen or found in the fellowship of such Egyptians, or who has disguised him or herself like them, shall remain in the same one month at one or several times, it is felony without benefit of clergy. Sir M. Hale says, that, at one Suffolk assizes, no fewer than thirteen persons were executed upon these statutes a few years before the Restoration. But, to the honor of humanity, there are no instances more modern than this of carrying these laws into practice; and the last sanguinary act is itself now repealed by 23 Geo. III., c. 54.

In Scotland they seem to have enjoyed some share of indulgence; for a writ of privy seal, dated 1594, supports John Faw, lord and earl of Little Egypt, in the execution of justice on his company and folk, conformably to the laws of Egypt, and in punishing certain persons there named, who rebelled against him, left him, robbed him, and refused to return home with him. James's subjects are commanded to assist in apprehending them, and in assisting Faw and his adherents to return home. There is a like writ in his favor from Mary queen of Scots, in 1553; and in 1554 he obtained a pardon for the murder of Ninian Small. So that it appears he had staid long in Scotland, and from him this strolling people received the name of Faw's gang, which they still retain.

It is incredible how this banditti have spread over the earth. They wander about in Asia and Africa and most of the European nations. Spain

is supposed by Mr. Twiss to contain 40,000, by others 60,000, and by some 120,000. But in September and October, 1800, they were almost totally extirpated by the plague. They abound in Italy, and are scattered through France, Germany, Denmark, Sweden and Russia. For nearly four centuries they have wandered through the world; and in every region, and among every people, whether barbarous or civilised, they have continued unchanged. Their origin has been generally believed to be from Egypt. Thomasius, Salmon, and Sig. Griselini, have endeavoured to prove it. M. Grellman, however, traces it from Hindostan, and the cause of their emigration from the bloody wars of Timur Beg in India, in 1408—9.

GYPSUM, selenite, or plaster-stone. The properties of gypsum, according to Cronstedt, are, 1. It is looser and more friable than calcareous earth. 2. It does not effervesce with acids, or at most in a very slight degree. 3. It falls into powder in the fire very readily. 4. When burnt, without being made red-hot, its powder readily concretes with water into a mass which soon hardens; but without any sensible heat being excited in the operation. 5. It is nearly as difficult of fusion as limestone; and shows almost the same effects upon other bodies with limestone, though sulphuric acid seems to promote the vitrification. Magellan, however, says that most of the gypsa, particularly the fibrous, melt in the fire pretty easily by themselves. 6. When melted with borax it puffs and bubbles very much, and for a long time during the fusion. Magellan says, when a small quantity of gypsum is melted with borax the glass becomes colorless and transparent; but some sorts of sparry gypsa, melted with borax, yield a fine yellow transparent glass, resembling the topaz; but, if too much of the gypsum is used in proportion to the borax, the glass becomes opaque. 7. When burnt with any inflammable matter, it emits a sulphureous smell, and may thus be decompounded, as well as by either of the fixed alkaline salts: in this last method there ought to be five or six times as much salt as gypsum. 8. The residuum shows some signs of iron. The species are, 1. Friable gypseous earth, white, found in Saxony. 2. Indurated gypsum, of a solid texture, or alabaster, the particles of which are not visible. This is sometimes found unsaturated with vitriolic acid. It is easily cut, and takes a dull polish. It is of several kinds. Fabroni tells us, that various fine alabasters are met with in Italy: twenty-four quarries of them, each of a different color, being worked out at Volterra. 3. Gypsum of a scaly texture, or common plaster of Paris. See PLASTER. 4. Fibrous gypsum, or plaster-stone, has two varieties, viz. with coarse or with fine fibres. It is white. 5. Selenites, or spar-like gypsum, by some also called glacies manæ, and confounded with the clear and transparent mica. It is of two kinds: clear and transparent, or yellowish and opaque; and abounds every where. 6. Crystallised gypsum, or gypseous drusen. This is found composed of wedge-shaped, and sometimes of capillary crystals; sometimes white and sometimes yellowish. 7. Stalactitical gypsum is of many different forms and colors. In large pieces it commonly varies between white and yellow, and likewise in its transparency. It is used as alabaster in several works. England abounds with gypseous substances. There are plenty in Derby, Nottingham, and Somerset sh res, so fine as to take a polish like alabaster. A very fine semipellucid alabaster is found in Derbyshire. Fine fibrous talcs are also found in many other places. Very fine gypseous drusen is found in Sheppey Isle, and some exceedingly beautiful, large, and clear as crystal, in the salt-works at Nantwich in Cheshire. The selenites rhomboidalis abounds in England, particularly in Shotoverhill, in Oxford, though rare in other counties. Sheppey affords spar-like gypsa, of a fibrous nature, and accreting like the radiations of a star on the septaria, and thence called stella septarii.

GYRATION, *n. s.* } Lat. *gyrus*, *gyro*; Fr. *girer*. The act of turning any thing about: gyre is a circle described by any thing moving in an orbit: gyreful is changeable.
GYRE, *n. s.*
GYRED, *adj.*
GYRE'FUL, *adj.*

But, evermore this is the manere,
To reve a wight that moste is to him dere
To preve in that thy *gierful* violence
Thus am I lost, thee helpeth no defence.
Chaucer. Troilus and Cresseide.

Does the wild haggard tower into the sky,
And to the south by thy direction fly?
Or eagle in her *gyres* the clouds embrace?
Sandys.

Ne thenceforth his approved skill to ward,
Or strike, or hurlen round in warlike *gyre*,
Remembered he; ne cared for his safe guard,
But rudely raged. *Spenser.*

Hamlet with his doublet all unbraced,
No hat upon his head his stockings loose
Ungartered, and down *gyred* to his ankle.
Shakspeare.

Which from their proper orbs not go
Whether they *gyre* swift or slow. *Drayt. Ecl.* 2.

Quick and more quick he spins in giddy *gyres*,
Then falls, and in much foam his soul expires.
Dryden.

GYRINUS, in zoology, a genus of insects of the coleoptera order. The antennæ are cylindrical, stiff, and shorter than the head: the eyes are four, two on the upper, and two on the under part of the head. See ENTOMOLOGY. G. natator, the common water flea, is one-third of an inch long; of a bright black color; the feet yellow, flat, and large. It runs with great celerity in circles on the surface of the water, and is very difficult to catch.

GYRON, in heraldry, an ordinary of two straight lines, issuing from divers parts of the esutcheon, and meeting in the Fesse point.

GYVES, *n. s.* } Welsh, *gevyn*. Fetters; chains for the legs: to fetter, shackle, or ensnare.
GYVE, *v. a.* }

The poor prisoners, boldly starting up, break off their chains and *gyves*. *Knolles.*

With as little a web as this, will I ensnare as great a fly as Cassio. Ay, smile upon her, do. I will *gyve* thee in thine own courtship. *Shakspeare.*

The villains march wide betwixt the legs, as if they had *gyves* on. *Id.*

And, knowing this, should I yet stay,
Like such as blow away their lives,
And never will redeem a day,
Enamoured of their golden *gyves*? *Ben Jonson.*

H.

H is in English, as in other languages, a note of aspiration, sounded only by a strong emission of the breath, without any conformation of the organs of speech, and is therefore by many grammarians accounted no letter. The *h* in English is scarcely ever mute at the beginning of a word, or where it immediately precedes a vowel; as *house, behaviour;* where it is followed by a consonant it has no sound, according to the present pronunciation; but anciently it made the syllable guttural.

'The strong emission of the breath, however,' as Mr. Todd observes, 'is usually withheld from *heir, herb, hostler, honest, honor, humor*, and by some from *humble*.'

It is pronounced by a strong expiration of the breath between the lips, closing, as it were, by a gentle motion of the lower jaw to the upper, and the tongue nearly approaching the palate. It seems to be agreed, that our H, which is the same with that of the Romans, derived its figure from the Hebrew ח. The Phœnicians, and most ancient Greeks and Romans, used the same figure with our H, which in the series of all these alphabets keeps its primitive place, being the eighth letter; though the Θ afterwards occupied its place in the Greek alphabet, and its form was changed to X; while its former figure, H, was used for the seventh letter, Eta, or long *e*. But in the beginning this H was only used for an aspiration, wherefore they wrote HEPOΔO instead of *ηρωδον*, HOΔOI instead of *οδω*, HEKATON, instead of *εκατον*, centum; from whence it comes, that the H formerly denoted 100. H was also joined with weak consonants instead of an aspiration; they using to write THEOΣ instead of *Θεος*, and the like.

Anciently the *h* was put for *ch;* thus *Chlodovæus* was formed *Hludovicus*, as it is read on all the coins of the ninth and tenth centuries; and it was on this account that they wrote *Hludovicus* with an *h*. In course of time, the sound of the *h* being much weakened, or entirely suppressed, the *h* was dropt, and the word was written *Ludovicus*. In like manner we read *Hlotaire, Hlovis*, &c. H subjoined to *c* sometimes gives it the sound of *sh*, as in *Charlotte;* but more frequently that of *tsh*, as in *charity, chitchat, church*, &c.; and not seldom that of *k*, as in *character, Achilles*, &c.; though the latter and all other Greek proper names ought rather to have the guttural sound, agreeably to their original pronunciation. H subjoined to *p* and *t*, also alters the sound of these letters; giving the former the sound of *f*, as in *philosophy*, &c. and the latter that of the Greek Θ, as in *theology, truth*, &c.; and in some English words, as *the, that, these*, &c., a still harder sound. As an abbreviation, H was used by the ancients to denote *homo, hæres, hora*, &c. Thus H. B. stood for *hæres honorum*, and H. S. corruptly for LLS. sesterce; and HA. for Hadrianus. As a numeral, H denotes 200; and with a dash over it, $\overline{H}$, 200,000.

HA, *interj.* Lat. *ha.* An expression of wonder, surprise, or alarm; a sudden question; an expression of laughter: it is used with reduplication.

He saith among the trumpets, *ha, ha*, and he smelleth the battle afar off. *Job*, xxxix. 25.

And out at the dores sterten they anon;
And saw the fox toward the wode is gon,
And bare upon his back the cok away.
They crieden out, harow and wala wa!
A *ha* the fox and after him they ran.
Chaucer. The Nonnes Preestes Tale.

You shall look fairer ere I give or hazard:
What says the golden chest? *ha!* let me see.
Shakspeare.

Ha, ha, 'tis what so long I wished and vowed;
Our plots and delusions
Have wrought such confusions,
That the monarch's a slave to the crown. *Dryden.*

Ha! what art thou! thou horrid headless trunk!
It is my Hastings! *Rowe's Jane Shore.*

HAAK, *n. s.* A fish.

HAARLEM. See HARLEM.

HABAKKUK, חבקוק, Heb. i. e. a wrestler, one of the twelve minor prophets, whose prophecies are taken into the canon of the Old Testament. There is no precise time mentioned in Scripture when he lived; but, from his predicting the destruction of Jerusalem by the Chaldeans, it is evident that he prophesied before Zedekiah, probably about the time of Manasseh. He is reported to have been the author of several prophecies which are not extant: but all that are indisputably his are contained in three chapters.

HABEAS CORPUS is the great remedy in English law in cases of false imprisonment. See IMPRISONMENT.

HABERDA'SHER, *n. s.* According to Minsheu from Germ. *habt ihr dass*, have you this; the expression of a shopkeeper offering his wares to sale. Mr. Thomson says, from Teut. *haabvertauscher*, from *haab*, have. One who sells small wares; a pedlar.

Because these cunning men are like *haberdashers* of small wares, it is not amiss to set forth their shop. *Bacon.*

A *haberdasher*, who was the oracle of the coffee-house, declared his opinion. *Addison.*

HABERE FACIAS POSSESSIONEM. A judicial writ that lies where one hath recovered a term for years in action of ejectione firmæ, to put him into possession; and one may have a new writ, if a former be not well executed. If the sheriff deliver possession of more than is contained in the writ of habere facias possessionem, an action on the case will lie against him, or an assize for the lands. The sheriff cannot return upon this writ that another is tenant of the land by right, but must execute the writ, for that will not come in issue between the demandant and him.

HABERE FACIAS SEISINAM. A writ directed to the sheriff, to give seisin of a freehold estate recovered in the king's courts, by ejectione firmæ, or other action. The sheriff may raise

the posse comitatus in his assistance, to execute these writs; and may break open the doors to deliver possession and seisin thereof; but he ought to signify the cause of his coming, and request that the doors may be opened. This writ also issues sometimes out of the records of a fine, to give the cognisee seisin of the land whereof the fine is levied. There is also a writ called habere facias seisinam, ubi rex habuit annum, diem, et vastum; for the delivery of lands to the lord of the fee, after the king hath had the year, day, and waste in the lands of a person convicted of felony.

HABER'GEON, *n. s.* Fr. *haubergeon;* low Lat. *halbergium*. Armour to cover the neck and breast; breast-plate; neck-piece; gorget.

And over that an *habergeon*
For percing of his herte.
Chaucer. Rime of Sire Thopas.

With him ther wenten knightes many on;—
Some wol ben armed in an *habergeon*,
And in a brest plate and in a gipon.
Id. The Knightes Tale.

—She resolved, unweeting to her syre,
Advent'rous knighthood on herselfe to don;
And counseld with her nourse her maides attyre
To turne into a massy *habergeon;*
And bade her all thinges put in readiness anon.
Spenser. Faerie Queene.

And halbert some, and some a *habergion;*
So every one in arms was quickly dight. *Fairfax.*

Then put on all thy gorgeous arms, thy helmet
And brigandine of brass, thy broad *habergeon.*
Milton. Samson Agonistes.

The shot let fly, and grazing
Upon his shoulder, in the passing,
Lodged in Magnano's brass *habergeon.*
Hudibras.

HABERGEON, HABERGETUM. From Fr. *haut*, high, and *berg*, armour, was a coat of mail; an ancient piece of defensive armour, in form of a coat, descending from the neck to the middle, and formed of little iron rings or meshes, linked into each other.

HABERT, a French family of talent of the seventeenth century: Germain Habert was abbot of Notre Dame de Cerisi, and one of the first members of the French Academy. He died in 1653, leaving several poems, the best of which is entitled Metamorphose des Yeux d'Iris, changés en Astres, 1639, 8vo. He also wrote the Life of Cardinal de Berulle, 1646, 4to, and paraphrased some of the Psalms.—Philip Habert, his brother, killed at the siege of Emmerich, in 1637, was also one of the first members of the Academy, and wrote The Temple of Death, a poem. There was also a celebrated doctor of the Sorbonne, Isaac Habert, who distinguished himself by several controversial works on Grace, in confutation of Jansenius, and by his Latin poetry. He was bishop of Vabres in 1645, and died in 1668.—Lewis Habert, another French ecclesiastic of note, and a doctor of the Sorbonne, was born in 1637, and died in 1718. He was author of a Complete Body of Divinity, in Latin, 7 vols. 12mo, 1700.

HABICOT (Nicholas), a celebrated French surgeon, born at Bonny, in Gatinois, who acquired great reputation by his skill, and by his writings. He wrote a Treatise on the Plague, and several other curious works. He died in 1624.

HABIL'IMENT, *n. s.*
HABIL'ITATE, *v.a.* & *adj.*
HABIL'ITATION, *n. s.*
HABIL'ITY, *n. s.*
HABIT, *n. s.* & *v. a.*
HAB'ITABLE, *adj.*
HAB'ITABLENESS, *n. s.*
HAB'ITANCE, *n. s.*
HAB'ITANT, *n. s.*
HABITA'TION, *n. s.*
HAB'ITATOR, *n. s.*
HABIT'UAL, *adj.*
HABIT'UALLY, *adv.*
HABIT'UATE, *v. a.*
HAB'ITUDE, *n. s.*

French, *habiliment, habiliter, habilitè, habitable, habiteur, habitude;* Lat. *habitus, habitabilis, habitatio, habitudo.* A habit is the state of having, or being, and applicable to appearance, as dress, clothes, garments, which are habiliments; to mind, as qualifications; faculty or ability acquired by frequently doing the same thing, as habitude: to the capacity of being dwelt in, as habitable: a habitation is a place of abode; habitator is an inhabitant of such dwelling: habitual is customary; established by repetition; used both in a good and evil sense.

And eke remembre thine *habilitee*
May not compare with hire; this wel thou wot.
Chaucer. The Court of Love.

And, eke, in eche of the pinacles
Weren sondrie *habitacles*,
In whiche stoden, all withouten
Full (the castle all abouten)
Of all maner of minstrales
And jestours, that tellen tales.
Id. House of Fame.

He was out cast of mannes compagnie;
With asses was his *habitation.*
Chaucer. The Monkes Tale.

In many places nightingales,
And alpes, and finches, and wodewales,
That in hir swetè song deliten
In thilke places as thei *habiten.*
Id. Romaunt of the Rose.

Where art thou, man, if man at all thou art,
That here in desart hast thine *habitance*,
And these rich heaps of wealth do'st hide apart
From the world's eye, and from her right usance?
Spenser's Faerie Queene.

He the fairest Una found,
Strange lady, in so strange *habiliment*,
Teaching the satyres. *Id.*

Wisdom, to the end she might save many, built her house of that nature which is common unto all; she made not this or that man her *habitation*, but dwelt in us. *Hooker.*

My riches are these poor *habiliments*,
Of which if you should here disfurnish me,
You take the sum and substance that I have.
Shakspeare.

I shifted
Into a madman's rags, t' assume a semblance
The very dogs disdained; and in this *habit*
Met I my father. *Id. King Lear.*

If you have any justice, any pity;
If ye be any thing but churchmen's *habits.*
Shakspeare.

He hath a better bad *habit* of frowning than the count Palatine. *Id.*

Present yourself and your fair princess
Before Leontes:
She shall be *habited* as it becomes
The partner of your bed. *Id. Winter's Tale.*

The things are but *habilitations* towards arms; and what is *habilitation*, without intention and act? *Bacon.*

Divers persons in the house of commons were attainted, and thereby not legal, nor *habilitate* to serve in parliament, being disabled in the highest degree. *Id.*

By means of our solitary situation, we know well most part of the *habitable* world, and are ourselves unknown. *Id.*

The torrid zone is now found *habitable*. *Cowley.*

That was her torrid and inflaming time;
This is her *habitable* tropique clime. *Donne.*

Palaces,
For want of *habitation* and repair,
Dissolve to heaps of ruins. *Denham.*

Having called to his memory Sir George Villiers, and the clothes he used to wear, in which at that time he seemed to be *habited*, he thought him to be that person. *Clarendon.*

Amplitude almost immense, with stars
Numerous, and every star perhaps a world
Of destined *habitation*. *Milton.*

God oft descends to visit men
Unseen, and through their *habitations* walks
To mark their doings. *Id.*

Sin, there in power before
Once actual; now in body, and to dwell
Habitual habitant. *Id.*

Hell at last
Yawning received them whole, and on them closed,
Hell their fit *habitation* fraught with fire
Unquenchable, the house of woe and pain. *Id.*

Not to earth are those bright luminaries
Officious; but to the earth's *habitant*. *Id.*

The will of God is like a streight unalterable rule; but the various comportments of the creature, either thwarting this rule, or holding conformity to it, occasion several *habitudes* of this rule unto it. *Hale.*

The sun's presence is more continued unto the northern inhabitants; and the longest day in Cancer is longer unto us than that in Capricorn unto the southern *habitators*. *Browne.*

We cannot conclude this complexion of nations from the vicinity or *habitude* they hold unto the sun. *Id.*

The cutting of the Equinoctial line decides that controversy of the *habitableness* of the torrid zone. *More.*

Men are first corrupted by bad counsel and company, and next they *habituate* themselves to their vicious practices. *Tillotson.*

Both the poets being dressed in the same English *habit*, story compared with story, judgment may be made betwixt them. *Dryden.*

The scenes are old, the *habits* are the same
We wore last year. *Id.*

It is impossible to gain an exact *habitude*, without an infinite number of acts and perpetual practice. *Id.*

Look round the *habitable* world, how few
Know their own good, or knowing it pursue. *Id.*

No civil broils have since his death arose,
But faction now by *habit* does obey;
And wars have that respect for his repose,
As winds for halcyons when they breed at sea. *Id.*

Mankind is willing to continue in a pleasing error, strengthened by a long *habitude*. *Id.*

They *habited* themselves like those rural deities, and imitated them in their rustick dances. *Id.*

By length of time
The scurf is worn away of each committed crime:
No speck is left of their *habitual* stains;
But the pure ether of the soul remains. *Id.*

'Tis impossible to become an able artist, without making your art *habitual* to you. *Id.*

His knowledge in the noblest useful arts,
Was such dead authors could not give;
But *habitudes* with those who live. *Id.*

To write well, one must have frequent *habitudes* with the best company. *Id.*

Those ancient problems of the spherical roundness of the earth, the being of antipodes, and of the *habitableness* of the torrid zone, are abundantly demonstrated. *Ray.*

As by the objective part of perfect happiness we understand that which is best and last, and to which all other things are to be referred; so by the formal part must be understood the best and last *habitude* of man toward that best object. *Norris.*

It results from the very nature of things, as they stand in such a certain *habitude*, or relation to one another. *South.*

Art is properly an *habitual* knowledge of certain rules and maxims. *Id.*

The last fatal step is, by frequent repetition of the sinful act, to continue and persist in it, 'till at length it settles into a fixed confirmed *habit* of sin; which, being that which the apostle calls the finishing of sin, ends certainly in death; death not only as to merit, but also as to actual infliction. *Id.*

Habitual evils change not on a sudden
But many days must pass and many sorrows.
Rowe's Ulysses.

There are among the statues several of Venus, in different *habits*. *Addison on Italy.*

Thy ear, inured to charitable sounds,
And pitying love, must feel the hateful wounds
Of jest obscene, and vulgar ribaldry,
The ill-bred question, and the loud reply,
Brought by long *habitude* from bad to worse.
Must hear the frequent oath, the direful curse.
Prior.

Rocks and mountains, which in the first ages were high and craggy, and consequently then inconvenient for *habitation*, were by continual deterration brought to a lower pitch. *Woodward.*

Internal graces and qualities of mind sanctify our natures, and render us *habitually* holy. *Atterbury*

The force of education is so great, that we may mould the minds and manners of the young into what shape we please, and give the impressions of such *habits*, as shall ever afterwards remain. *Id.*

Such as live in a rarer air are *habituated* to the exercise of a greater muscular strength. *Arbuthnot.*

Powers celestial to each other's view
Stand still confest, though distant far they lie,
Or *habitants* of earth, or sea, or sky. *Pope.*

The clergy should content themselves with wearing gowns and other *habiliments* of Irish drapery. *Swift.*

In all the *habitudes* of life,
The friend, the mistress, and the wife,
Variety we still pursue. *Id.*

The clergy are the only set of men who wear a distinct *habit* from others. *Id.*

HABINGTON (William), an English poet and historian, was the son of Thomas Habington, esq. He was born in 1605, at Hendlip, in Worcestershire; and educated at St. Omer's. He died in 1654, and left several MSS. in the hands of his son. His printed works are, 1. Poems under the title of Castura. 2. The Queen of Arragon, a tragi-comedy. 3. Observations upon History. 4. The History of Edward IV. king of England, written in a very florid style, and published at the desire of Charles I.

HABIT is particularly used for the uniform garments of the religious, conformable to the rule and order whereof they make profession: as the habit of St. Benedict, of St. Augustine, &c. In this sense we say absolutely, such a person has taken the habit; meaning he has entered upon a noviciate in a certain order. So he is said to quit the habit, when he renounces the order. See Vow. The habits of the several religious are not supposed to have been calculated for singularity or novelty: the founders of the orders, who were at first inhabitants of deserts and solitudes, gave their monks the habits usual among the country people. Accordingly the primitive habits of St. Anthony, St. Hilarion, St. Benedict, &c., are described by the ancient writers as consisting chiefly of sheep skins, the common dress of the peasants of that time. The orders established in and about cities and inhabited places took the habit worn by other ecclesiastics at the time of their institution. What makes them differ so much from each other, as well as from the ecclesiastical habit of the present times, is, that they have always kept invariably to the same form; whereas the ecclesiastics and laics have been changing their mode on every occasion.

HA'BNAB, *adv.* *Hap ne hap*, or *nap*; as *would nould*, or *ne would*: *will*, *nill*, or *ne will*; that is, *let it happen or not*. At random; at the mercy of chance; without any rule or certainty of effect.

He circles draws and squares,
With cyphers, astral characters;
Then looks 'em o'er to understand 'em,
Although set down *habnab* at random.
Hudibras.

HACHA, a town, province, and river of Granada, South America. The province was formerly of considerable extent, but is now much reduced, being only eight leagues in length from north to south, and four wide east and west. It has the Atlantic Ocean on the north, and Lake Maracaibo on the east. The river, which runs from south to north, was once famous for its pearl fisheries. It enters the Atlantic Ocean in lat. 11° 31′ 30″ N., and at the mouth stands the town of this name.

HACK, *v. a.* Sax. ꝥaccan; Dut. *hacken*; Fr. *hacher*, from Sax. acare an axe. To cut into small pieces; to chop; to cut slightly with frequent blows; to mangle with unskilful blows. It bears commonly some notion of contempt or malignity; to speak with hesitation.

It nedeth not you more to tellen
(To maken you to long to dwellen)
Of these like yates florishynges;
Ne of compaces, ne karvynges;
Ne the *hackyng* in masonries,
As corbettes and imageries.
Chaucer. House of Fame.

What a slave art thou, to *hack* thy sword as thou hast done, and say it was in fight? *Shakspeare.*

Richard the Second here was *hacked* to death. *Id.*

I'll fight 'till from my bones my flesh be *hackt*. *Id.*

Disarm them, and let them question; let them keep their limbs whole, and *hack* our English. *Id.*

One flourishing branch of his most royal root
Is *hackt* down, and his summer leaves all faded,
By Envy's hand, and Murder's bloody axe. *Id.*

He put on that armour, whereof there was no one piece wanting, though *hackt* in some places, bewraying some fight not long since passed. *Sidney.*

Burn me, *hack* me, hew me into pieces.
Dryden.

Not the *hackt* helmet, nor the dusty field,
But purple vests, and flowery garlands please.
Addison.

But fate with butchers placed thy priestly stall,
Meek modern faith to murder, *hack*, and mawl.
Pope.

Dost not thou know the fate of soldiers?
They're but ambition's tools, to cut a way
To her unlawful ends; and when they're worn,
Hacked, hewn with constant service, thown aside
To rust in peace and rot in hospitals.
Southern's Loyal Brothers.

HACK, *v. n.* } Welsh, *hacknai*;
HACKNEY, *n. s.* & *v. a.* } Teut. *hacheneye*; Fr.
HACQUETON, *n. s.* } *haquenee*; old Fr. *haquat*. To hackney; to become common; to prostitute: hackney, a hired horse; a prostitute; a hireling; any thing let out for hire: hacqueton, a piece of armour.

His *hakeney*, which that was al pomeleegris,
So swatte that it was wonder for to see;
It seemed as he had priked miles three.
Chaucer. The Chanones Yemannes.

He didde, next his white lere,
Of cloth of lake fin and clere,
Abreche and eke a sherte;
And next his sherte, an *haketon*.
Id. The Rime of Sire Thopas.

You may see the very fashion of the Irish horseman in his long hose, riding shoes of costly cordwain, his *hacqueton*, and his habergeon. *Spenser.*

He is long *hackneyed* in the ways of men.
Shakspeare.

Light and lewed persons were as easily suborned to make an affidavit for money, as post-horses and *hackneys* are taken to hire. *Bacon.*

These notions young students in physick derive from their *hackney* authors. *Harvey.*

That is no more than every lover
Does for his *hackney* lady suffer. *Hudibras.*

Who, mounted on a broom, the nag
And *hackney* of a Lapland hag,
In quest of you came hither post. *Id.*

Three kingdoms rung
With his accumulative and *hackney* tongue.
Roscommon.

Shall each spurgalled *hackney* of the day,
Or each new pensioned sycophant, pretend
To break my windows. *Pope.*

A wit can study in the streets;
Not quite so well, however, as one ought;
A *hackney* coach may chance to spoil a thought.
Id.

Thy coach of *hackney*, whisky, one horse chair.
Byron. Childe Harold.

HACKET (John), bishop of Litchfield and Coventry, was born in 1592. In 1623 he was made chaplain to James I. and prebendary of Lincoln, and obtained several other promotions, but lost them during the commotions of 1645. He then lived retired at Cheam until the Restoration, when he recovered his preferments. In 1661 Charles II. made him bishop of Litchfield and Coventry. Finding the cathedral almost battered to the ground, he in eight years finished a church superior to the former, towards which he himself contributed £20,000. He also laid

out £1000 on a prebendal house. He died in 1670. He published, before he entered into orders, a comedy entitled Loyola, which was twice acted before king James I. After his death was published A Century of his Sermons on several remarkable Subjects, and The Life of Archbishop Williams, both in folio.

HACK'LE, *n. s.* & *v. a.* }
HAG'GLE, *v. a.* & *v. n.* } Probably from Fr. *hacher*, or from
HAG'GLER, *n. s.* } hack, to cut. Hackle is raw silk, or any flimsy substance: to hackle, to dress flax: haggle, to cut, chop, or mangle: haggler, one that cuts; and, figuratively, one that is tedious in making a bargain: these are corruptions from hackle.

Suffolk first died, and York all *haggled* o'er,
Comes to him where in gore he lay insteeped.
Shakspeare.

Take the *hackle* of a cock or capon's neck, or a plover's top: take off one side of the feather, and then take the *hackle* silk, gold or silver thread, and make these fast at the bent of the hook. *Walton.*

HACKNEY, in geography, is the name of a very extensive and thickly populated parish, in the vicinity of London, in the hundred of Ossulton, Middlesex. It comprises several hamlets, amongst which are Upper and Lower Clapton on the north, Dalston, Shacklewell, and Kingsland on the west, and Homerton on the east. The old parish church of St. John's, of which but the tower now remains, was a fine Gothic edifice, built in the reign of Edward II. The new one, a fine modern structure on a larger scale, was begun in 1792, agreeably to an act of parliament; but the steeple was not erected till 1814, and, being found too light and weak to bear the fine peal of bells belonging to the church, the old tower was left standing, and in it the bells are now rung. In Wells-street is a new and handsome chapel of ease, erected on a piece of ground given by the Rev. Mr. Norris, after the design of Mr. J. Savage. Brooke House, now a receptacle for lunatics, was formerly the seat of the noble family whose name it bears; St. John's palace, an ancient house in Wells-street, now let out in small tenements, is believed to have been the residence of the prior of the order of St. John of Jerusalem; and south of Lea-bridge, in this parish, are the Temple mills, once the property of the knights templars, but now used as lead and corn mills, and to raise water for the supply of Clapton and Homerton. At the bottom of Hackney marsh, through which runs the river Lea, have been discovered some remains of an ancient and extensive stone causeway, which appears, from the coins found here, to have been one of the Roman highways through the island. The vicarage is valued at £20, and the rectory valued at £26 is a sinecure.

HACKNEY COACHES are said to derive their name from many of the Londoners, in the seventeenth century, residing at Hackney, and, in consequence, often hiring coaches and horses: in time, therefore, hired coaches in general became so called.—These first began regularly to ply under this name in London in 1625, when they were only twenty in number; and in 1635 they were so much increased, that king Charles I. issued out an order of council to restrain them. In 1637 he allowed fifty hackney coachmen, each of whom might keep twelve horses. In 1652 their number was limited to 200; and in 1654 it was extended to 300. In 1661 400 were licensed, at £5 each annually. In 1694 700 were allowed, and taxed by the 5 & 6 of W. & M. at £4 a-year each. By 9 Anne, c. 23, 800 coaches were allowed in London and Westminster; but by 8 Geo. III., cap. 24, the number was increased to 1000, which are licensed by commissioners, and pay a duty of 5*s.* per week. They have been more lately increased to 1200. Hackney coachmen refusing to go at, or exacting more than, their limited hire, are subject to a forfeit of from 10*s.* to £3, which the commissioners have power to determine. Every hackney coach must have check strings, and every coachman plying without them incurs a penalty of 5*s.* The drivers must give way to persons of quality and gentlemen's coaches, under the penalty of £5. The duty arising from licenses to hackney coaches and chairs, in London, forms a branch of the king's perpetual revenue, governed by commissioners, and is a public benefit; as the expense of it is not felt, and its regulations have established a competent jurisdiction, whereby a very refractory race of men are kept in order. As tables of hackney coach fares and regulations may be had at every respectable stationer's it will be needless to give any further account of them.

HACQUET (Balthasar), an eminent naturalist, was born at Conquet, in Brittany, in 1740. He left France while young for Austria, and became professor of surgery at the Lyceum of Laybach, in Carniola, and perpetual secretary of the Imperial Society of Agriculture and the Arts. In 1788 the emperor of Germany made him professor of natural history at the University of Lemberg, and member of the council of mines at Vienna. He died in 1815. Besides Travels in the Alps and Carpathian Mountains, and a number of memoirs in periodical works, he was the author of Oryctographia Carniolica, or, the Physical Geography of Carniola, Istria, and parts of the neighbouring countries, Leipsic, 1778—1789, 4 vols. 4to.

HAD. The *pret.* and *part. pass.* of HAVE, which see. I *had* better, you *had* better, &c., means the same as, *it would be better for me* or *you*; or *it would be more eligible*; it is always used potentially, not indicatively: nor is *have* ever used to that import. We say likewise, *it had been better* or *worse*.

For, certes our Lord Jesu Crist hath spared us so benignely in our follies; that if he ne *had* pitee on mannes soule, a sory song might we alle sing.
Chaucer. The Persones Tale.

I *had* rather be a country servant maid,
Than a great queen with this condition.
Shakspeare.

Had we not better leave this Utica,
To arm Numidia in our cause? *Addison's Cato.*

HADDINGTON, an ancient borough in a parish of the same name in East Lothian which joins with Jedburgh, Dunbar, Lauder, and North Berwick, in sending a member to parliament. it consists of four streets, which intersect each

other nearly at right angles. It is governed by a provost, three bailies, dean of guild, treasurer, twelve councillors, and seven deacons. It was the birth-place of J. Knox, the celebrated reformer. Before the Reformation it had an abbey, now in ruins, founded in 1178 by Ada, mother of king Malcolm IV., and William I. of Scotland. It has a manufacture of coarse woollens, two fairs, and a weekly market, the greatest in Scotland for grain. It is seventeen miles east of Edinburgh.

HAD'DOCK, *n. s.* Fr. *hadot*. A sea fish of the cod kind, but small.

The coast is plentifully stored with pilchards, herrings, and *haddocks*. *Carew.*

HADDOCK. See GADUS.

HADDON (Dr. Walter) was born in 1516. He distinguished himself by writing a fine Latin style, which he acquired by a constant study of Cicero. He was a strenuous promoter of the Reformation under Edward VI., and succeeded bishop Gardiner in the mastership of Trinity Hall, Cambridge. He concealed himself in Mary's reign; but acquired the favor of queen Elizabeth, who sent him one of the three agents to Bruges in 1566, to restore commerce between England and the Netherlands. He was also engaged with Sir John Cheke in drawing up in Latin The Code of Ecclesiastical Law, published in 1571 by the learned John Fox, under the title of Reformation legum Ecclesiasticarum; his other works are published under the title of Lucubrations. He died in 1572.

HADELN, a fertile district of Hanover, at the mouth of the Elbe, forming a part of the province of Bremen. It has on its confines the Elbe, and the territory of Hamburgh, and has an area of about 126 square miles. Population 16,000.

HADERSLEBEN, a district of Danish Sleswick, 680 square miles in extent, and containing 35,000 inhabitants. The number of parishes is sixty.

HADERSLEBEN, a town of the above district, situated on a bay of the Little Belt. Population 3200. It has a harbour for small vessels, and some trade; but the principal means of its support is the passage to Funen. Twenty-four miles east of Ribe

HADES, sometimes signifies the invisible regions of the dead, sometimes the place of the damned, and sometimes the grave. In Greek authors it signifies the regions of the dead. See HELL.

HADLEY, a town of Suffolk, seated on the Preston. It has a handsome church, a chapel of ease, and a Presbyterian meeting-house. Large quantities of yarn are spun for the Norwich manufacture. On the top of the steeple, which affords a fine view of Essex, there is an iron pot originally placed there as a beacon.

HADRAMAUT, a province of Arabia, occupying the southern coast upon the Indian Ocean, from Yemen to Ommon. Many of the hilly districts are fertile, and this, along with the province of Yemen, formed the Arabia Felix of the ancients. Since trade has flowed in other directions, Hadramaut has fallen into a state of great decline. It continues, however, to export frankincense, gum-arabic, dragon's blood, myrrh, and aloes (from Socotora). It has also a few manufactures of coarse cloths, carpets, and the knives called Jambea. The maritime trade is chiefly carried on by foreigners, the Arabs of Mascat. Both the coast and the interior are divided into a number of independent states.

HÆMAGOGOS, among physicians, a compound medicine, consisting of fetid and aromatic simples, mixed with black hellebore, and prescribed in order to promote the menstrua and hæmorrhoidal fluxes; as also to bring away the lochia.

HÆMANTHUS, the blood-flower, a genus of the monogynia order, and hexandria class of plants: nat. order ninth, spathaceæ. Involucrum hexaphyllous and multiflorous: COR. sexpartite superior: berry trilocular. Species fourteen; the principal are,

H. coccineus, with plain tongue-shaped leaves, rises about a foot high, with a stalk supporting a cluster of bright red tubulous flowers. It has a large bulbous root, from which in autumn come out two broad flat leaves of a fleshy consistence, shaped like a tongue, which turn backward on each side, and spread on the ground, so that they have a strange appearance all the winter In the spring these decay; so that from May to the beginning of August they are destitute of leaves. The flowers are produced in the autumn, just before the leaves come out.

H. puniceus, with large spear-shaped waved leaves, grows about a foot high, and has flowers of a yellowish red color. These are succeeded by berries, which are of a beautiful red color when ripe. This species should be constantly kept in a dry stove. These plants are natives of the Cape of Good Hope, and do not propagate very fast in Europe, their roots seldom putting forth many off-sets. The best method of managing them is to have a bed of good earth in a bricked pit, where they may be covered with glasses, and in hard frost with mats and straw. The earth in the frame should be two feet deep, and the frame should rise two feet above the surface, to allow height for the flower-stems to grow. The roots should be planted nine or ten inches asunder; and in winter, if they are protected from frost, and not suffered to have too much wet, but in mild weather exposed to the air, they will flower every year, and the flowers will be much stronger than with any other management.

HÆMATEMESIS, in medicine, from *αἷμα*, blood, and *ἐμέω*, I vomit, signifies a vomiting of blood. The causes of hæmatemesis have been the subject of much speculation. The time of life in which it principally occurs, and the circumstance of being peculiar to the female sex, induced physicians to imagine that it was intimately connected with the menstrual flux, the suppression of which has generally been considered as the sole cause of the disease; it has been said to be a hæmorrhage vicarious of the menses. Dr. Cullen, after stating that a plethora in the vessels of the stomach, where there is a general plethoric state of the habit, although it might be supposed to give rise to hæmatemesis, is in fact not found

by experience to do so; and that such a plethoric state of the system is probably induced by the suppression of the menses; is at length compelled to admit that some particular circumstances of the stomach itself must be supposed to exist which 'determine an afflux of blood to that organ, and may therefore occur without any considerable or dangerous plethora prevailing in the system.' The peculiar circumstances, in this instance, he supposes to be the connexion and consent which we know to subsist between the uterus and the whole of the alimentary canal, and especially that principal part of it, the stomach.

The usual practice adopted for the cure of hæmatemesis consists in the use of refrigerant, or cooling medicines, as they have been called, such as the neutral salts; to which some have added the use of spermaceti and oleaginous matters. If the disease, notwithstanding the exhibition of these medicines, continued for some time, then powerful astringents and sedatives, such as alum, the tincture of muriated iron, digitalis, &c., were resorted to, with the occasional interposition of a gentle laxative, such as the castor oil.

The experience of Dr. James Hamilton, in the Royal Infirmary at Edinburgh, led him to connect hæmatemesis with a constipated state of the alimentary canal, and therefore to attempt the cure of the disease by the exhibition of cathartics. After having adopted this mode of treatment during a period of ten years, Dr. Hamilton thus states his opinion of its efficacy. 'I have followed the practice, which this case suggested, in the instances of the ailment which I have since met with; and my success has been so uniform, that I now lay it down as a certain position, that the proper exhibition of purgative medicines affords sure and effectual means of removing hæmatemesis.' The medicines which Dr. Hamilton employed with this view were various; combinations of calomel and jalap, aloetic pills, neutral salts, &c., occasionally aided by the use of injections.

Whether we may suppose the loaded bowels to impede the hepatic and abdominal circulation, and thus to occasion a venous plethora in the stomach and intestines; or whether the languid circulation in these parts, and the slow action of the bowels, may be alike the consequence of the general languor of the system; or whether any other hypothesis be resorted to, the value of the practical fact is neither diminished nor augmented.

Having discussed the ordinary form of hæmatemesis at some length, we have only a few words to add relative to some other modifications of the disease, which depend upon more serious disorder of the stomach itself, of other organs, or of the system at large. Success in the cure of these varieties of bloody vomiting is doubtful in the extreme, and very difficult to be attained; for the constitution itself is undermined in these cases, by acute disease, or by previous irregularities and intemperance, in addition to the local mischief.

The organic derangements of the stomach, which are accompanied by vomiting of blood, are those arising from wounds or other mechanical injury to its structure, which in general are speedily fatal. These are included in the second species of Sauvages Hæmatemesis traumatica; to which may be added the ninth, or H. cholerica, as far as regards its origin from corrosive poison swallowed; and the fourth, or H. ab hyrudine, in which the internal coat of the stomach has been wounded by a leech, swallowed in drinking ditch water. In cancer and scirrhus of the stomach, a blackish matter, resembling the grounds of coffee, is commonly ejected by vomiting; but, as this is not in a fluid state, it can scarcely be denominated hæmatemesis.

Morbid enlargements of the neighbouring viscera, the spleen, pancreas, and liver, aneurism of the aorta, and compression of that artery, have all been assigned as occasional causes of hæmatemesis. In the records of physic, Dr. Cullen observes, there are many instances of vomitings of blood, which were accompanied with a tumefied spleen, which had compressed the vas breve, and thereby prevented the return of venous blood from the stomach. It is also possible that an obstruction of the liver, resisting the free motion of the blood in the vena porta, may sometimes interrupt the free return of the venous blood from the vessels of the stomach, and thereby occasion a vomiting of blood; but the instances of this are neither so frequent, nor so clearly explained, as those of the former case. In the morbus niger of authors, and the malæna of Sauvages, the black and grumous blood is sometimes thrown out by vomiting, as well as discharged downwards, and is considered as originating in a venous plethora in the intestinal canal, connected with obstructed viscera. This forms the twelfth species of Sauvages, or H. atra.

There are two or three conditions of the constitution in which hæmatemesis is liable to occur, and in which it is to be deemed a hopeless symptom. The first of these is the last stage of acute fevers, in which spontaneous hæmorrhage takes place from different parts of the body, and is usually considered as the most decided symptom of the malignancy and putrescency of the disease. In typhus, scarlet-fever, small-pox, &c., this sort of hæmorrhage occasionally closes the scene. Hence the aphorism of Hippocratus, 'qui sanguinem vomunt, si quidem sine febre, salutare; si verò cum febre, malum.' The other constitutional condition is that which is found in scurvy, and in the purpura hæmorrhagica, hæmorrhæa petechialis, or purples, as the disease has been variously denominated. In the highest degree of these maladies, blood flows from every part of the body, internal and external, where the cuticle or investing membrane is delicate and thin, and hæmorrhage from the stomach is one form of the discharge.

HÆMATOCELE, in surgery, denotes a swelling of the scrotum, or of the spermatic cord, caused by blood. The term is derived from the Greek *αιμα*, blood, and *κηλη*, a tumor.

HÆMATYTES, the blood-stone, a hard mineral substance, red, black, or purple, but the powder of which is always red. It is found in masses, spherical, semi-spherical, pyramidal, or cellular, i. e. like a honeycomb. It contains a large quantity of iron: 40 lbs. of this metal have

been extracted from a quintal of stone; but the iron is of such a bad quality, that this ore is not commonly smelted. The great hardness of hæmatites renders it fit for burnishing metals.

HÆMATOPUS, the sea pye, in ornithology, a genus belonging to the order of grallæ. The beak is compressed, with an equal wedge-shaped point; the nostrils are linear; and the feet have three toes without nails. There is but one species, viz. the

H. ostralegus, or oyster-catcher, a native of Europe and America. It feeds upon shell-fish near the sea-shore, particularly oysters and limpets. On observing an oyster, which gapes wide enough for the insertion of its bill, it thrusts it in and takes out the inhabitant: it will also force the limpets from their adhesion to the rocks with sufficient ease. It also feeds on marine insects and worms. With us these birds are often seen in considerable flocks in winter: in summer they are met with only in pairs, though chiefly near the sea or salt rivers. The females lay four or five eggs, on the bare ground, on the shore, above high-water mark; they are of a greenish gray, blotched with black. The young are said to be hatched in about three weeks. These birds are pretty wild when in flocks; yet they are easily tamed, if taken young.

HÆMATOXYLON, or HÆMATOXYLUM, logwood, or Campeachy wood; a genus of the monogynia order, and decandria class of plants, natural order thirty-third, lomentaceæ: CAL. quinquepartite: petals five: CAPS. lanceolated, unilocular, and bivalved: the valves navicular, or keeled like a boat. Of this genus there is only one species, viz.

H. Campechianum. It grows naturally in the bay of Campeachy at Honduras, and other parts of the Spanish West Indies, where it rises from sixteen to twenty-four feet high. The stems are generally crooked, and seldom thicker than a man's thigh. The branches, which come out on each side, are crooked, irregular, and armed with strong thorns, garnished with winged leaves, composed of three pairs of obscure lobes indented at the top. The flowers come in a racemus from the wings of the leaves, standing erect, and are of a pale yellowish color, with a purple impalement. They are succeeded by flat oblong pods, each containing two or three kidney seeds. The trees are cut up into billets or junks, the bark and white sap of which are chipped off, and the red part, or heart, is sent to England for sale. See LOGWOOD.

HÆMORRHAGIA, or HÆMORRHAGE; from αἷμα, blood, and ῥηγνυμι, to burst forth; in medicine, a flux of blood at any part of the body; arising either from a rupture of the vessels, when too full or too much pressed; or from an erosion of them, when the blood is too sharp and corrosive. Hæmorrhagia, among the ancient Greeks, was only used for a flux of blood at the nose; but the moderns extend the name to any flux of blood, whether by the nose, mouth, lungs, stomach, intestines, matrix, or any other part.

HÆMORRHOIDAL, an appellation given by anatomists to the arteries and veins going to the intestinum rectum.

HÆMORRHOIDS, or piles, an issue of blood from the hæmorrhoidal vessels. See MEDICINE and SURGERY.

HÆMUS, in ancient geography, a vast ridge, running from Illyricum towards the Euxine, so high as to afford a prospect both of the Euxine and Adriatic Seas.

HAEN (Anthony De), M. D., an eminent German physician of the eighteenth century. He was privy counsellor and physician to the empress Mary-Theresa, queen of Hungary and Bohemia. He was author of many works, of which the principal are his Ratio Medendi, in 17 vols. 8vo., and a Treatise on Magic. He died in 1776.

HÆRETICO COMBURENDO, a writ which anciently lay against a heretic, who, having once been convicted of heresy by his bishop, and having abjured it, afterwards falling into it again, or into some other, was thereupon committed to the secular power. It is thought by some to be as ancient as the common law itself; however, the conviction of heresy by the common law was not in any petty ecclesiastical court, but before the archbishop in a provincial synod, and the delinquent was delivered up to the king to do with him as he pleased: so that the crown had a control over the spiritual power. But by 2 Hen. IV., cap. 15, the diocesan alone, without the intervention of a synod, might convict of heretical tenets; and unless the convict abjured his opinions, or if after abjuration he relapsed, the sheriff was bound ex officio, if required by the bishop, to commit the unhappy victim to the flames, without waiting for the consent of the crown. This writ was actually executed on two Anabaptists in the 7th of Elizabeth, and on two Arians in the 9th of James I. Sir Edward Coke was of opinion that this writ did not lie in his time; but it is now taken away by stat. 29 Car. II. cap. 9. But this statute does not take away or abridge the jurisdiction of Protestant archbishops or bishops, or any other judges of any ecclesiastical courts, in cases of atheism, blasphemy, heresy, or schism, and other damnable doctrines and opinions; but they may prove and punish the same according to his majesty's ecclesiastical laws, by excommunication, deprivation, degradation, and other ecclesiastical censures not extending to death, in such sort, and no other, as they might have done before the making of this act. See HERESY.

HAERLEM. See HARLEM.

HAERLEM MEER, a large lake of the Batavian republic, in the department of Amstel, between Haerlem, Amsterdam, and Leyden; navigable by boats.

HAF, an extensive bay or gulf of Pomerania, formed by the Oder, and separated from the Baltic by the islands of Usedom and Wallin. It is divided into the Great and Little Haf. Its length is thirty-six miles, and its breadth varies from one to nine miles. This is a common name on this coast for a gulf or bay.

HAFEZ (Khodja Schemseddin Mohammed), a popular Persian poet, flourished in the fourteenth century, and chiefly resided at Schiraz. His poetry consists of odes, mingling conviviality with love and sentiment. He declined the invitation of the sultan Ahmed to visit Bagdad.

'Two affectionate friends,' he said, 'two glasses of old wine, a tranquil indolence, a book, and a shady grove, are blessings which I would not sacrifice for all the happiness of this world or the next.' He died at Schiraz, where a monument was erected for him, which was overturned by an earthquake in October, 1825. The date of his death has been differently stated; but it may be fixed in 1389. Sir William Jones gave the public two of his odes in an English dress, which are extremely beautiful. We may also notice Nott's Select Odes of Hafez, translated into English verse, with the original text, 1787, 4to.; and Hindley's Persian Lyrics, from the Divan—I—Hafez, with Paraphrases in verse and prose,' 1800, 4to.

HAFT, *n. s.* & *v. a.* Sax. hæft; Dutch, *heft*; from to have, or hold. A handle; that part of any instrument that is taken into the hand. To haft is to set in a handle as the blade of a knife.

The knyf I know wel iknowe:
* * * * * * *
* * * * * * *
That wele I woot there is noon like to seek al Cristen londes
For three preciouse stoneys been within the *haft*
Perfitlick ycouchit, and sotillick by craft
Endendit in the *haft* and that right coriously
A saphir and a salidone, and a rich ruby.
Chaucer. The Merchantes Second Tale.

This brandished dagger
I'll bury to the *haft* in her fair breast. *Dryden.*

These extremities of the joints are the *hafts* and handles of the members. *Id. Dufresnoy.*

A needle is a simple body, being only made of steel; but a sword is a compound, because its *haft* or handle is made of materials different from the blade. *Watts.*

HAG, *n. s.* & *v. a.*
HAG'GARD, *adj.*
HAG'GARD, *n. s.* & *adj.*
HAG'GARDLY, *adv.*
HAG'GISH, *adj.*

Saxon, hægerre, a goblin; Dut. *heckle*, a witch; Ger. *hager*. A witch; fury; enchantress; or an ugly old woman: haggard signifies wild; irreclaimable; thin; deformed with passion; lean; rugged; or, perhaps, ugly. A haggard is any thing untameable; a species of hawk: to hag is to torment, or harass with terror.

Does the wild *haggard* tower into the sky,
And to the south by thy direction fly? *Sandys.*

As *haggard* hawk, presuming to contend
With hardy fowl above his able might,
His weary pounces all in vain doth spend,
To truss the prey too heavy for his flight.
Faerie Queene.

I will be married to a wealthy widow,
Ere three days pass, which has as long loved me
As I have loved this proud disdainful *haggard*.
Shakspeare.

Out of my door, you witch! you *hag*, you baggage, you polecat, you runnion! *Id.*

She's too disdainful;
I know her spirits are as coy and wild,
As *haggard* as the rock. *Id.*

But on us both did *haggish* age steal on
And wore us out of act. *Id.*

Thus spoke the impatient prince, and made a pause:
His foul *hags* raised their heads, and clapt their hands;
And all the powers of hell, in full applause,
Flourished their snakes, and tost their flaming brands. *Crashaw.*

That makes them in the dark see visions,
And *hag* themselves with apparitions. *Hudibras.*

I enlarge my discourse to the observations of the aires, the brancher, the ramish hawk, and the *haggard*. *Walton.*

I spied a withered *hag*, with age grown double,
Picking dry sticks, and mumbling to herself. *Otway's Orphan.*

Such affectations may become the young;
But thou, old *hag*, of threescore years and three,
Is shewing of thy parts in Greek for thee? *Dryden.*

For her the rich Arabia sweats her gum;
And precious oils from distant Indies come,
How *haggardly* soe'er she looks at home. *Id.*

Fearful besides of what in fight had passed,
His hands and *haggard* eyes to heaven he cast. *Id.*

A *hagged* carrion of a wolf, and a jolly sort of dog, with good flesh upon's back, fell into company together. *L'Estrange.*

How are superstitious men *hagged* out of their wits with the fancy of omens, tales, and visions. *Id.*

Where are the conscious looks, the face now pale,
Now flushing red, the downcast *hagard* eyes,
Or fixt on earth, or slowly raised! *Smith.*

Beneath the gloomy covers of an yew,
In a dark grot, the baleful *haggard* lay,
Breathing black vengeance, and infecting da. *Garth.*

HAGAR, Heb. הגר, i. e. a stranger, a native of Egypt, the servant of Sarah, concubine of Abraham, mother of Ishmael, and ancestor of the Arabians. Her history, and the repeated divine interpositions for the preservation of her and her son, are recorded in Gen. xvi. and xxi.

HAGARENES, or HAGARITES, a branch or tribe of the descendants of Ishmael, so named from his mother. Some make the name synonymous with Ishmaelites, Arabians, and Saracens; but Asaph, in Psalm lxxxiii, ver. 6, mentions them as distinct from the other Ishmaelites. They dwelt in Arabia Felix, according to Pliny. Strabo joins them with the Nabathæans, and Chaylotæans, whose habitation was rather in Arabia Deserta. Others think their capital was Petra, or Agra, and, if so, they dwelt in Arabia Petræa. The Reubenites, in the days of Saul, made war with the Hagarites, and became masters of their country east of Gilead. This therefore was the true country of the Hagarenes. In the reign of Jeroboam II. 44,760 Israelites defeated them, and took 100,000 prisoners, with immense booty (1 Chron. v. 10, 19—21). When Trajan came into Arabia he besieged the capital of the Hagarenes, but could not take it. The Hagarenes valued themselves upon their wisdom. See Baruch, iii. 23.

HAGEDORN (Frederick De), a celebrated German poet, born at Hamburg, where his father was resident for Frederick IV. king of Denmark, in 1708. He finished his studies at Jena; and, in 1728, published a number of poetical pieces in Germany, which were well received. He afterwards came to England, and, at his return, was made secretary to the English Hamburgh Company. In 1738 he published his Fables and Tales, the first German collection of the kind. He afterwards published Moral Poems, Epigrams, and five books of Songs;

which of all his poetical pieces are most esteemed. He died in 1754.

HAGGAI, Heb. חגי, i. e. pleasant, the tenth of the minor prophets, was born, in all probability, at Babylon, A. M. 3457, whence he returned with Zerubbabel. By command from God (Ezra v. 1, 2, &c.) he exhorted the Jews, after their return from the captivity, to finish the rebuilding of the temple, which they had intermitted for fourteen years. To encourage them, he assured them that the glory of this latter house should be greater than the glory of the former; which was accordingly fulfilled, when Christ honored it with his presence; for, with respect to the building, the latter was nothing in comparison of the former. The Jews say that he died in the last year of the reign of Darius, at the same time with the prophets Zechariah and Malachi. Epiphanius says, he was buried at Jerusalem with the priests. The Greeks keep his festival on the 16th of December, and the Latins on the 4th of July.

HA'GGESS *n. s.* From hog or hack. A mass of meat, generally pork, chopped, and enclosed in a membrane. In Scotland it is commonly made in a sheep's maw of the entrails of the same animal, cut small,.with suet and spices.

HAGIOGRAPHA, from ἁγιος, holy, and γραφω, to write. Those books of scripture called by the Jews Cetubim. The name is very ancient, St. Jerome making mention of it. The Jews divide the sacred writings into three classes:— 1. The law, or the five books of Moses; 2. The Prophets, which they call Neviim; and the Cetubim, כתובים, called by the Greeks, &c. Hagiographa; comprehending the book of Psalms, Proverbs, Job, Daniel, Ezra, Nehemiah, Chronicles, Canticles, Ruth, Lamentations, Ecclesiastes, and Esther. Kimchi, Maimonides, and Elias Levita, call these books the Writings, by way of eminence.

HAGUE, a town of South Holland, in the department of Delft. In Latin it is called Haga Comitis; in French, La Haye; in Dutch, der Haag, or 'S. Graavenhage, i. e. the Earl's Grove, from the wood near which it is built, and in which the earls of Holland had a country house. It is one of the most considerable towns in the Netherlands, pleasantly situated, and exceedingly beautiful. It stands in a dry soil, higher than the surrounding country; the air is tolerably pure, and the environs and approaches superior to those of most towns in Holland. From the sea the access is by a long and beautiful avenue, nearly two miles in length; on the land side the approach is by a road leading from the south-east, on which there is a pleasant prospect of the Hague and the woods to the north of the town.

The principal streets are straight, wide, and handsome, paved with a light-colored brick, and containing canals, trees, and neat bridges. The largest is the Voorhout, and contains numerous elegant edifices; but the most attractive part is the public square, called the Vyverburg, of an oblong form, with a beautiful walk, and an avenue of trees on one side, while the other is bordered by a large basin of water. The old palace is an enormous pile of building, presenting specimens of almost all species of architecture: it contains a number of valuable paintings; and was once the meeting place of the states-general. The mansion of the family of Bentinck, that of prince Maurice, and the new palace begun by William III., are all worth attention. The number of churches is fourteen; and there are several charitable institutions.

In the environs of the Hague are a number of villas; but their principal ornament is the palace of the Orange family, a mile to the north of the town. The wood, principally composed of stately oaks, two English miles in length, and three quarters of a mile in breadth, is full of labyrinths and elegant garden ground. The house has nothing princely, except some public rooms, and a gallery of paintings. At a distance of about a mile and a half in a south-east direction is the castle of Ryswyc, which gave name to the well-known treaty of 1697.

The Hague being deprived of the residence of the seat of government, on the invasion of the French in 1795, did not recover the disadvantage until several years after the re-instatement of the Orange family in 1813. Its inhabitants took an early and active part in the insurrection against the French in the latter part of that year, after the battle of Leipsic; and the prince of Orange arrived here from England on the 30th of November. The Hague is now, along with Brussels, the alternate residence of the king of the Netherlands, and legislature. A manufacture of porcelain, and the printing of French books, are the chief branches of industry. It never was a place of trade. The population was computed in 1817 at 42,000. It is twelve miles north-west of Rotterdam, and thirty-two south-west of Amsterdam. Long. 4° 23′ E., lat. 52° 4′ N.

Hague (Charles), Mus. Doct., was born at Tadcaster, Yorkshire, in 1769. At ten years old he was sent to Cambridge, where his brother then resided, for the purpose of instruction, and became the pupil of Manini, and the elder Hellendaal. In 1785 he came to London, where he had the benefit of Saloman's and Dr. Cooke's instructions. In 1799, having taken the degree of music-bachelor four years previously, he succeeded Dr. Randall in the professorship of music at Cambridge. He set to music the ode for the installation of his royal highness the duke of Gloucester as chancellor of the university. His other compositions are, By the Waters of Babylon, an anthem, and a great variety of glees, &c., remarkable for the purity of their harmony. Dr. Hague died June 18th, 1821.

HAGUENAU, a considerable town of France, in Alsace, anciently an imperial town. It was taken by the French in 1673; the imperialists retook it in 1702; after which it was several times taken and retaken by both parties; but at last the French obtained possession of it in 1706. It is divided by the Motter into two parts, and is seated in the Forest of Haguenau, fifteen miles north of Strasburg, and 255 east of Paris. Near it the French in December, 1793, defeated the allied army, and took 500 prisoners, with sixteen pieces of cannon. It has manufactures of tobacco, madder, and earthenware. About 400 acres of the town was burnt to the ground by

accident in 1800. Population 7000. Twenty-one miles north of Strasburg.

HAH, *interj.* An expression of sudden effort.

Her coats tucked up, and all her motions just,
She stamps, and then cries *hah!* at every thrust.
Dryden.

HAHN (Simon Frederick), a celebrated German historian. At ten years of age he was not only far advanced in the Latin, but understood several living languages. At fourteen he delivered a speech on the origin of the cloister at Bergen, his birth-place, which was printed; and in 1708 he published a Continuation of Meibomius's Chronicle of Bergen. After having for several years given public lectures at Halle, he became, at the age of twenty-four, professor of history at Helmstadt; and was at length counsellor, historiographer, and librarian, to George I. He died in 1729, aged thirty-seven. Besides several other works, he wrote, 1. The History of the Empire, vol. I.; 2. Collectio Monumentorum Veterum et Recentium Ineditorum, 2 vols. 8vo.

HAIL, *interj.* & *v. a.* } Saxon, hœl, health;
HALE, *adj.* } hail, therefore, is the same as *salve* of the Latins, or ὑγιαίνε of the Greeks, health be to you.—Johnson. A term of salutation now used only in poetry; health be to you. It is used likewise to things inanimate. To hail is to salute, or welcome; to approach with reverence; to call to: hale, healthy; sound.

Anon, as I hem overtoke, I said:
Heile, frendes! whither purpose ye to wend.
Chaucer. Court of Love.

My seely sheep like well below,
For they been *hale* enough I trow,
And liken their abode. *Spenser.*

Hail, hail, brave friend!
Say to the king the knowledge of the broil. *Shaksp.*

Her sick head is bound about with clouds:
It does not look as it would have a *hail*,
Or health wished in it, as on other morns.
Ben Jonson.

Hail active Nature's watchful life and health!
Her joy, her ornament, and wealth!
Hail to thy husband Heat and thee!
Thou the world's beauteous bride, the lusty bridegroom he! *Cowley.*

The angel *hail*
Bestowed, the holy salutation used
Long after to blest Mary, second Eve. *Milton.*

Farewell, happy fields,
Where joy for ever dwells! *hail* horrors! *hail*
Infernal world! and thou profoundest hell
Receive thy new possessor! *Id.*

All *hail*, he cried, thy country's grace and love!
Once first of men below, now first of birds above.
Dryden.

Thrice call upon my name, thrice beat your breast,
And *hail* me thrice to everlasting rest. *Id.*

A galley drawing near unto the shore was *hailed* by a Turk, accompanied with a troop of horsemen. *Knolles.*

Hail to the sun! from whose returning light
The cheerful soldier's arms new lustre take. *Rowe.*

Some of these wise partizans concluded the government had hired two or three hundred *hale* men, to be pinioned, if not executed, as the pretended captives.
Addison.

His stomach too begins to fail;
Last year we thought him strong and *hale*,
But now he's quite another thing:
I wish he may hold out 'till Spring. *Swift.*

HAIL, *n. s.* & *v. n.* }
HAIL'-SHOT, *n. s.* }
HAIL'-STONE, *n. s* } Sax. hagel. Drops of rain frozen in their falling: hail-shot are small-shot scattered like hail; hail-stone, a simple particle or ball of hail: haily showers consist partially or entirely of hail.
HAIL'Y, *adj.* }

My people shall dwell in a peaceful habitation when it shall *hail*, coming down on the forest.
Isa. xxxii. 19.

You are no surer, no,
Than is the coal of fire upon the ice,
Or *hail-stone* in the sun. *Shakspeare.*

The master of the artillery did visit them sharply with murdering *hail-shot*, from the pieces mounted towards the top of the hill. *Hayward.*

Thunder mixed with *hail*,
Hail mixed with fire, must rend the' Egyptian sky.
Milton.

The sulphurous *hail*
Shot after us in storm, o'erblown hath laid
The fiery surge that from the precipice
Of Heaven received us falling. *Id. Paradise Lost.*

Hard *hail-stones* lie not thicker on the plain,
Nor shaken oaks such showers of acorns rain.
Dryden.

From whose dark womb a rattling tempest pours,
Which the cold North congeals to *haily* showers.
Pope

HAIL, in natural history, a meteor generally defined frozen rain, but differing from it in that the hailstones are not formed of single pieces of ice, but of many little spherules agglutinated together. Neither are these spherules all of the same consistence; some being hard and solid like perfect ice; others soft, and mostly like snow hardened by a severe frost. Sometimes the hailstone has a kind of core of this soft matter; but more frequently the core is solid and hard, while the outside is formed of a softer matter. Hailstones are of various figures; some round, others pyramidal, crenated, angular, thin, and flat, and some stellated, with six radii like the small crystals of snow. Natural historians record various instances of surprising showers of hail, in which the hailstones were of extraordinary magnitude. Mezeray, speaking of the war of Louis XII. in Italy in 1510, relates, that there was for some time a horrible darkness, thicker than that of night; after which the clouds broke into thunder and lightning, and there fell a shower of hailstones, or rather (as he calls them) pebble stones, which destroyed all the fish, birds, and beasts, of the country. It was attended with a strong smell of sulphur; and the stones were of a bluish color, some of them weighing 100 lbs Hist. de France, tom. II. p. 339. At Lisle in Flanders, in 1686, hailstones fell of a very large size; some of which contained in the middle a dark brown matter, which, thrown on the fire, gave a very great report. Philosophical Transactions, No. 203. Dr. Halley and others relate, that in Cheshire, Lancashire, &c., April 29th, 1697, a thick black cloud, coming from Caernarvonshire, disposed the vapors to congeal in such a manner, that for about the breadth of two miles, which was the limit of the cloud, in its progress for sixty miles, it did inconceivable damage; not only killing all sorts of fowls, and other small animals, but splitting trees, knocking down horses and men, and even ploughing up

the earth; so that the hailstones buried themselves under ground an inch or an inch and a half deep. The hailstones, many of which weighed five ounces, and some half a pound, being five or six inches about, were of various figures: some round, others half round; some smooth, others embossed and crenated; the icy substance of them was very transparent and hard, but there was a snowy kernel in the middle of them. In Hertfordshire, May 4th, 1697, after a severe storm of thunder and lightning, a shower of hail succeeded, which far exceeded the former: some persons were killed by it, their bodies beaten all black and blue; vast oaks were split, and fields of rye cut down as with a scythe. The stones measured from ten to thirteen or fourteen inches about. Their figures were various, some oval, others picked, some flat. Philosophical Transactions, No. 229. Hail, so far as has been discovered, never produces any beneficial effect. Rain and dew invigorate and give life to the whole vegetable tribe; frost, by expanding the water contained in the earth, pulverises and renders the soil fertile; snow covers and preserves the tender vegetables from being destroyed by too severe a frost. But hail does none of these. In winter it lies not sufficiently close to cover vegetables from the nipping frosts; and in spring and summer it not only has a chilling and blasting effect, but often does great damage to the more tender plants by the weight of the stones. In great hail storms the damage done in this manner is prodigious. Hail is one of the natural phenomena for which it is difficult to account in any satisfactory manner. It is certain that, on the tops of mountains, hailstones, as well as drops of rain, are very small, and continually increase in bulk, till they reach the lower grounds. It would seem, therefore, that during their passage through the air they attract the congealed vapor, which increases them in size. But here we are at a loss how they come to be solid hard bodies, and not always soft, and composed of many small stars like snow. The flakes of snow, no doubt, increase in size as they descend, as well as the drops of rain or hailstones; but why should the one be in soft crystals, and the other in large hard lumps, seeing both are produced from congealed vapor? Some modern philosophers ascribe the formation of hail to electricity. Signior Beccaria supposes hail to be formed in the higher regions of the air, where the cold is intense, and where the electric matter is very copious. In these circumstances, a great number of particles of water are brought near together, where they are frozen, and in their descent collect other particles, so that the density of the substance of the hailstone grows less and less from the centre; this being formed first in the higher regions, and the surface being collected in the lower. Drops of rain and hail agree in this, that the more intense the electricity that forms them, the larger they are. Motion is known to promote freezing, and so the rapid motion of the electrified clouds may produce that effect. A more intense electricity also, he thinks, unites the particles of hail more closely than the more moderate electricity does those of snow. In like manner we see thunder clouds more dense than those that merely bring rain; and the drops of rain are larger in proportion, though they fall not from so great a height.

HAILBRON, a strong town of Germany in Wirtemberg, famous for its baths; seated on the Neckar, five miles north-east of Stutgard. Long. 9° 25′ E., lat. 49° 19′ N.

HAILES, Lord. See Dalrymple.

HAILLAM (Bernard de Girard), lord of, a celebrated French historian. After having made some figure in the literary world, Charles IX. made him historiographer of France, in 1571. His history of France extends from Pharamond to the death of Charles VII., and is the first complete history of that kingdom composed in the French tongue. He was honored by Henry III. with several marks of favor. He died at Paris in 1610.

HAINAN, one of the most considerable islands of Asia, subject to China, and belonging to the province of Quang-ton. It has on the north the province of Quang-si; on the south the channel between the bank Paracel and the east coast of Cochin China; on the west the same kingdom and part of Tong-king; and on the east the Chinese Sea. Its extent from east to west is between sixty and seventy leagues, and from north to south forty-five; and about 480 miles in circumference. Kaun-tcheou-fou is the capital. Hainan lies near San-cian, between 18° and 20° N. lat.

HAINAULT, an inland province of the Netherlands, bounded on one side by the French frontier, and on the other sides by Flanders, South Brabant, and the province of Namur. It has a superficial exent of 1700 square miles, beautiful undulating plains, and a fruitful soil: it is watered by the Scheldt, the Sambre, and the Haine. To the east it is woody; but corn and valuable pastures are found every where. The mineral productions are iron, lead, and marble, and coal in large quantities. The manufactures are woollens, cottons, linen, lace, glass, iron and earthenware. Enghein, Seneffe, Steinkirk, Fleurus, Malplaquet, Fontenoy, and other scenes of celebrated conflicts, are all in this province. The chief towns, Tournay, Mons, and Charleroi, give name to the three districts of the province, which sends eight deputies to the representative assembly of the Netherlands. In former ages this was called the county of Hainault, and, in its most extensive sense, comprised a considerable part of what is now the French departments of the North and of the Ardennes; a country still sometimes called French Hainault. The treaty of 1814 gave the Netherlands this province, as it had been formerly held by Austria; but that of 1815 added to it the cantons of Beaumont, Merbe. le Chateau, and Dour, formerly belonging to French Hainault. The population of the whole province is 473,000.

HAIR, *n. s.*
Hair'brained, *adj.*
Hair'breadth, *n. s.*
Hair'cloth, *n. s.*
Hair'-lace, *n. s.*
Hair'less, *adj.*
Hair'iness, *n. s.*
Hair'y. *adj.*

Saxon hæp. One of the common teguments of the body, found upon all the parts of the body, except the soles of the feet and palms of the hands. The compounds have varieties of mean-

ing, most of which are obvious, except hair-brained, which should rather be written hare-brained, and which means inconstant, unsettled, wild as a hare. Wild; irregular; unsteady. Hair-breadth, hair and breadth, a very small distance; the diameter of a hair. A miraculous escape is called a hairbreadth escape. Haircloth is stuff made of hair very rough, which is worn for purposes of mortification or self-denial. Hairlace, hair and lace. The fillet with which women tie up their hair. Hairless, hairiness, and hairy, are descriptive of the state of being covered with hair or deprived of it.

Seven hundred chosen men left-handed could sling stones at an *hairbreadth*, and not miss.
Judges xx. 16.

And every child ware, of leves grene
A fresh chaplet upon his *haires* bright.
Chaucer. The Floure and the Leafe.

Hire bright *here* kembed was, untressed all.
Id. The Knighte's Tale.

Ne she wos gaie, freshe, ne jolife,
But semed to be full ententife
To gode werkes and to faire:
And therto she had on an *haire*.
Id. Romaunt of the Rose.

Naughty lady,
These *hairs* which thou do'st ravish from my chin,
Will quicken and accuse thee. *Shakspeare.*

Much is breeding;
Which, like the courser's *hair*, hath yet but life,
And not a serpent's poison. *Id.*

I spoke of most disastrous chances,
Of moving accidents by flood and field;
Of *hairbreadth* 'scapes in the imminent deadly breach.
Id.

He is a curer of souls, and you a curer of bodies: if you should fight you go against the *hair* of your profession. *Id.*

If thou takest more
Or less than just a pound; if the scale turn
But in the estimation of a *hair*,
Thou diest. *Id.*

She his *hairy* temples then had rounded
With coronet of flowers. *Id.*

White beards have armed their thin and *hairless* scalps
Against thy majesty. *Id.*

Let's leave this town; for they are *hairbrained* slaves,
And hunger will enforce them be more eager. *Id.*

The custom of their ancestors they slight
And change their shirts of *hair* for robes of gold.
Bancroft's fall of Mortimer.

Some worms are commonly resembled to a woman's *hairlace* or fillet, thence called tæniæ. *Harvey.*

A *hair* 'twixt south and south-west side,
He could distinguish and divide
On either which he would dispute
Confute, change hands, and still confute.
Hudibras.

He judges to a *hair* of little indecencies, and knows better than any man what is not to be written.
Dryden.

Storms have shed
From vines the *hairy* honours of their head. *Id.*

Shall the difference of *hair* only, on the skin, be a mark of a different internal constitution between a changeling and a drill? *Locke.*

It is composed of reeds and parts of plants woven together, like a piece of *haircloth*. *Grew.*

Far up the stream the twisted *hair* he throws,
Which down the murm'ring current gently flows.
Gay's Rural Sports.

If Molly happens to be careless,
And but neglects to warm her *hairlace*,
She gets a cold as sure as death. *Swift.*

Her brow was overhung with coins of gold,
That sparkled o'er the auburn of her *hair*,
Her clustering *hair* whose longer locks were rolled
In braids behind, and though her stature were
Even of the highest for a female mould,
They nearly reached her heel. *Byron. Don Juan.*

HAIR consists of small filaments issuing out of the pores of the skins of animals; and serving most of them as a covering. See ANATOMY. Hair grows longest on the head, chin, and breast; in the arm-pits, and about the privities. Hairs ordinarily appear round or cylindrical; but the microscope also discovers triangular and square ones; which diversity of figure arises from that of the pores, to which the hairs always accommodate their form. Their length depends on the quantity of the proper humor to feed them, and their color on the quality of that humor: whence, at different stages of life, the color usually differs. Their extremities split into two or three branches, especially when kept dry, or suffered to grow too long; so that what appears only a single hair to the naked eye, seems a brush to the microscope. The hair of a mouse, viewed by Mr. Derham with a microscope, seemed to be one single transparent tube, with a pith made up of fibrous substances, running in dark lines, in some hairs transversely, in others spirally. The darker medullary lines, he observes, were small fibres convolved, and lying closer together than in the other parts of the hair. They run from the bottom to the top of the hair; and, he imagines, may serve to make a gentle evacuation of some humor out of the body. Hence the hair of hairy animals may not only serve as a fence against cold, &c., but as an organ of insensible perspiration, &c. Citizen Mongé has made some curious observations on hair and wool. The surfaces of these bodies, he says, are not smooth; they seem to be formed rather of small laminæ placed over each other, in a slanting direction from the root towards the point, like the scales of fish; or of zones placed one upon another, as in the horns of animals. When a hair is laid hold of by the root in one hand and drawn between the fingers of the other, from the root towards the point, scarce any friction or resistance is perceived, and no noise is heard; but if, grasping it by the point, it be passed in the same manner between the fingers of the other hand, from the point towards the root, a resistance is felt, a tremulous motion is evident to the touch, and a noise may be distinctly heard. It is obvious, therefore, that the texture of the surface of hair is not the same from the root towards the point, as it is from the point towards the root. These observations are equally applicable to the filaments of wool. The surface of these bodies is therefore formed of rigid laminæ, laid upon each other like tiles, from the root to the point. And it is this structure which is the principal cause of the disposition to felting, which the hair of animals generally possesses.

The ancients held the hair a sort of excr-

ment, fed only with excrementitious matters, and no proper part of a living body. They supposed it generated of the fuliginous parts of the blood exhaled by the heat of the body to the surface, and there condensed in passing through the pores. Their chief reasons were, that the hair being cut will grow again, even in extreme old age, and when life is very low: that in hectic and consumptive people, where the rest of the body is continually emaciating, the hair thrives; nay, that it will even grow again in dead carcases. They added that hair does not feed and grow like the other parts, by introsusception, i. e. by a juice circulating within it; but, like the nails, by juxtaposition. But the moderns are agreed, that every hair properly and truly lives, and receives nutriment to fill it like the other parts; which they prove hence, that the roots do not turn gray in aged persons sooner than the extremities, but the whole changes color at once; which shows that there is a direct communication, and that all the parts are affected alike. In strict propriety, however, it must be allowed, that the life and growth of hairs is of a different kind from that of the rest of the body; and is not immediately derived therefrom, or reciprocated therewith. They derive their food from some juices in the body, but not from the nutritious juices of the body; whence they may live, though the body be starved. Wulferus, in the Philosophical Collections, gives an account of a woman buried at Norimberg, whose grave being opened forty-three years after her death, hair was found issuing forth plentifully through the clefts of the coffin. The cover being removed, the whole corpse appeared in its perfect shape; but, from the crown of the head to the sole of the foot, covered over with thick set hair, long and curled. The sexton going to handle the upper part of the head with his fingers, the whole fell at once, leaving nothing in his hand but a handful of hair: there was neither skull nor any other bone left; yet the hair was solid and strong.

By the Jews hair was worn naturally long, just as it grew; but the priests had theirs cut every fortnight, while waiting at the temple: they used scissars only. The Nazarites, while their vow continued, were forbidden to touch their heads with a razor. See NAZARENE. The falling off of the hair, or a change of its color, was regarded amongst the Hebrews as a sign of the leprosy. Black hair was esteemed by them as the most beautiful. Absalom's hair was cut once a year, and is said to have weighed 200 shekels, or 31 ozs. The law of God gives no particular ordinances with respect to the hair. The hair of both Jewish and Grecian women engaged a principal share of their attention, and the Roman ladies seem to have been no less curious with respect to theirs. They generally wore it long, and dressed it in various ways, ornamenting it with gold, silver, pearls, &c. On the contrary, the men amongst the Greeks and Romans, and amongst the later Jews, wore their hair short, as may be collected from books, medals, statues, &c. This formed a principal distinction in dress betwixt the sexes. This observation illustrates a passage in St. Paul's epistle to the Corinthians (1 Cor. ix. 4—6), where he forbids the Corinthian women, when praying by divine inspiration, to have their hair dishevelled; because this made them resemble the heathen priestesses, when actuated by the pretended influence of their gods. Amongst the Greeks, both sexes, a few days before marriage, cut off and consecrated their hair as an offering to their favorite deities. It was also customary among them to hang the hair of the dead on the doors of their houses previous to interment. They likewise tore, cut off, and sometimes shaved their hair, when mourning for their deceased friends, which they laid upon the corpse or threw into the pile, to be consumed together with the body. The ancients imagined that no person could die till the topmost hair was cut off; and this act they supposed was performed by the invisible hand of death, or Iris, or some other messenger of the gods. Thus Virgil describing the death of Dido, lib. iv says,

> Nam quia nec fato, meritâ nec morte peribat;
> Sed misera ante diem, subitoq; accensa furore;
> Nondum illi flavum Proscipini vertice crinem
> Abstulerat, Stygioq; caput damnaverat Orco.
> Ergo Iris croceis per cœlum roscida pennis,
> Mille trahens varios adverso Sole colores,
> Devolat, et supra caput astitit: Hunc ego Diti
> Sacrum jussa fero, teque isto corpore solvo.
> Sic ait, et dextrâ crinem secat: omnis et unà
> Dilapsus calor, atque in ventos vita recessit.

Whatever was the fashion, with respect to the hair, in the Grecian states, slaves were forbidden to imitate the freemen. Their hair was always cut in a particular manner, called θριξ ανδραποδης, which they no longer retained after they procured their freedom. Both the Greeks and Romans wore false hair. The ancient Gauls esteemed it an honor to have long hair; hence the appellation Gallia Comata. Julius Cæsar, on subduing the Gauls, made them cut off their hair, as a token of submission. In imitation of this, such as afterwards quitted the world, to live in cloisters, had their heads shaven, to show that they bid adieu to all earthly ornaments, and made a vow of perpetual subjection to their superiors. The ancient Britons were proud of the length and beauty of their hair, and were at much pains in dressing it. Some of them carried this to an extravagant height. A young warrior who was taken prisoner, and condemned to be beheaded, requested that no slave might be permitted to touch his hair, which was remarkably long and beautiful, and that it might not be stained with his blood. Not content with the natural color of their hair, which was commonly fair or yellow, they used washes to render it still brighter. One of these was a composition of lime, the ashes of certain vegetables, and tallow. They used various arts also to make the hair of their heads grow thick and long; which last was considered as a mark of dignity and noble birth. Boadicea, queen of the Iceni, is described by Dio with very long hair, flowing over her shoulders, and reaching down below the middle of her back. The Britons shaved their beards, all but their upper lips; the hair of which they, as well as the Gauls, allowed to grow to a very in-

convenient length. In after times, the Anglo-Saxons and Danes, also considered fine hair as one of their greatest ornaments, and were at great pains in dressing it. Young ladies before their marriage wore their hair uncovered and untied, flowing in ringlets over their shoulders; but as soon as they were married they cut it shorter, tied it up, and put on a head-dress. To have the hair entirely cut off was so great a disgrace, that it was a punishment inflicted on women guilty of adultery. The Danish soldiers who were quartered upon the English, in the reigns of Edgar and of Ethelred II., were particularly attentive to the dressing of their hair; which they combed at least once every day, and thereby captivated the affections of the English ladies. Gregory of Tours assures us, that, in the royal family of France, it was long the peculiar mark and privilege of kings and princes of the blood to wear long hair, dressed and curled: all others wore it polled, or cut round, in sign of inferiority. Some say that there were different cuts for all the different qualities and conditions, from the prince who wore it at full length, to the slave or villain who was quite cropt. To cut off the hair of a prince under the first race of French kings, was to declare him excluded from the right of succeeding to the crown. In the eighth century, people of quality had their children's hair cut the first time by persons they had a particular esteem for; who hence were reputed a sort of spiritual parents or godfathers. And, long before this, Constantine sent the pope the hair of his son Heraclius, as a token that he desired him to be his adoptive father.

Pope Anicetus is said to have been the first who forbade the clergy to wear long hair: but the prohibition is of an older date in the churches of the east; and the letter, wherein that decree is written, is much later than that pope. The clerical tonsure is related, by Isidorus Hispalensis, as of apostolical institution. Long hair was anciently held so odious, that there is a canon still extant, of 1096, importing, that such as wore long hair should be excluded coming into church while living, and not be prayed for when dead. Luitprand made a furious declamation against the emperor Phocas, for wearing long hair. The French historians have been very exact in describing the hair of their kings. Charlemagne wore it very short; his sons shorter; Charles II. had none at all. Under Hugh Capet it began to appear again; but the priests excommunicated all who let their hair grow. Peter Lombard expostulated so warmly with Charles VI. that he cut off his hair: and his successors for some generations wore it very short. A professor of Utrecht, in 1650, wrote expressly on the question, Whether it be lawful for men to wear long hair? and concluded for the negative. Another divine, named Reves, who had written for the affirmative, replied to him. The clergy both secular and regular were obliged to shave the crowns of their heads, and keep their hair short, which distinguished them from the laity; and several canons were made against their concealing their tonsure, or allowing their hair to grow long. The shape of this clerical tonsure was the subject of long and violent debates between the English clergy on the one hand, and those of the Scots and Picts on the other; that of the former being circular, and that of the latter only semicircular. Some, who pretended to superior sanctity, inveighed with great bitterness against the long hair of the laity; and labored to persuade them to cut it short, in imitation of the clergy. Thus St. Wulstan, bishop of Worcester, declaimed with great vehemence against luxury of all kinds, but chiefly against long hair as most criminal and most universal. 'When any of those vain people who were proud of their long hair,' says William of Malmsbury, 'bowed their heads before him to receive his blessing, before he gave it, he cut a lock of their hair with a little knife, which he carried about with him for that purpose; and commanded them by way of penance of their sins, to cut all the rest of their hair in the same manner. If any of them refused to comply with this command, he denounced the most dreadful judgments upon them, reproached them for their effeminacy, and foretold, that, as they imitated women in the length of their hair, they would imitate them in their cowardice when their country was invaded; which was accomplished at the landing of the Normans.' Anselm, archbishop of Canterbury, went so far as to pronounce the then terrible sentence of excommunication against all who wore long hair, for which pious zeal he is very much commended. Serlo, a Norman bishop, acquired great honor by a sermon which he preached before Henry I., in 1104, against long and curled hair, with which the king and all his courtiers were so much affected, that they consented to resign their flowing ringlets, of which they had been so vain. The prudent prelate gave them no time to change their minds, but immediately pulled a pair of shears out of his sleeve, and performed the operation with his own hand. Another incident happened about twenty-five years after, which gave a temporary check to the prevailing fondness for long hair.

Though the external surface of the body is the natural place for hairs, we have many well-attested instances of their being found also on the internal surface. Amatus Lusitanus mentions a person who had hair upon his tongue. Pliny and Valerius Maximus say, that the heart of Aristomenes the Messenian was hairy. Cælius Rhodiginus relates the same of Hermogenes the rhetorician; and Plutarch, of Leonidas, king of Sparta. There have been, however, various and indisputable observations of hairs found in the kidneys, and voided by urine. Hippocrates says, that the glandular parts are the most subject to hair; but bundles of hair have been found in the muscular parts of beef, and in parts of the human body equally firm. Hair has been often found in abscesses and imposthumations. But, of all the internal parts, there is none so much subject to an unnatural growth of hair as the ovaries of females. Cardan relates, that he found hair in the blood of a Spaniard; Slonatius in that of a gentlewoman of Cracovia; and Schultetus declares, from his own observation, that those people, who are afflicted with the plica polonica, have very often hair in their blood.

Hair makes a very considerable article in com-

merce, especially since perukes have been worn. The hair of the growth of Britain, and other northern countries, is valued much beyond that of Italy, Spain, the south parts of France, &c. The goodness of hair consists in its being well fed, and neither too coarse nor too slender. Its length should be about twenty-five inches; the more it falls short of this the less value it bears. There is no certain price for hair. It is sold at from 5*s.* to £5 per oz., according to its quality. Hair is also used in various other arts and manufactures. The hair of beavers, hares, conies, &c., is the principal substance of which hats are made. Spread on the ground, and left to putrefy on corn-lands, hair, like all other animal substances, proves good manure.

The scarcity of gray and white hair has made the dealers fall upon methods of reducing other colors to this. This is done by spreading the hair to bleach on the grass like linen, after first washing it out in a lixivious water. This lie, with the force of the sun and air, brings the hair to so perfect a whiteness, that the most experienced person may be deceived; there being scarcely any way of detecting the artifice, but by boiling and drying it, which leaves the hair of the color of a dead walnut-tree leaf. There is also a method of dyeing hair with bismuth, which renders such white hair as borders too much upon the yellow of a bright silver color: boiling is the proof of this too, the bismuth not being able to stand it. Hair may also be changed from a red, gray, or other disagreeable color, to a brown or deep black, by a solution of silver. The liquors sold under the name of hair waters, are at bottom only solutions of silver in aquafortis, largely diluted with water, with the addition perhaps of other ingredients which contribute nothing to their efficacy. The solution should be fully saturated with the silver, that there may be no more acid in it than is necessary for holding the metal dissolved; and, besides dilution with water, a little spirit of wine may be added for the further dulcification of the acid. It must be observed, that for diluting the solution, distilled water, or pure rain water, must be used; the common spring waters turning it milky, and precipitating a part of the dissolved silver. If the liquor touches the skin, it has the same effect on it as on the hair, changing the part moistened with it to an indelible black. Hair may also be dyed of any color in the same manner as wool. Hair which does not curl or buckle naturally, is brought to it by boiling and baking it—thus: After having picked and sorted the hair, and disposed it in parcels according to its lengths, they roll them up and tie them tight down upon little cylindrical instruments, either of wood or earthenware, a quarter of an inch thick, and hollowed a little in the middle, called pipes; in which state they are put in a pot over the fire, there to boil for about two hours. When taken out they let them dry; and when dried they spread them on a sheet of brown paper, cover them with another, and, making a crust round them of common paste, set them in an oven till the crust is about three-fourths baked. The end by which a hair grew to the head is called the head of the hair; and the other, with which they begin to give the buckle, the point. Formerly the peruke-makers made no difference between the ends, but curled or wove them by either indifferently; but this made them unable to give a fine buckle; hair woven by the point never taking a right curl. Foreigners own themselves obliged to the English for this discovery, which was first carried abroad by a British peruke-maker.

Hair of Plants, or down, a general term expressive of all the hairy and glandular appearances on the surface of plants, to which they are supposed to serve the double purpose of defensive weapons and vessels of secretion. These hairs are minute threads of greater or less length and solidity; some of them visible to the naked eye; whilst others are rendered visible only by the help of glasses. Examined by a microscope, almost all the parts of plants, particularly the young stalks or stems, appear covered with hairs. These appear under various forms; in the leguminous plants they are generally cylindric; in the mallow tribe, terminated in a point; in agrimony, shaped like a fish-hook; in nettles, awl-shaped and jointed; and in some compound flowers, with hollow or funnel-shaped florets, they terminate in two crooked points. Probable as some experiments have rendered it, that the hairs on the surface of plants contribute to some original secretion, their principal use seems to be, to preserve the parts in which they are lodged from the bad effects of violent frictions, from winds, from extremes of heat and cold, and such like external injuries. M. Guettard, who established a botanical method, from the form, situation, and other circumstances of the hairy and glandular appearances on the surface of plants, has demonstrated, that these appearances are generally constant and uniform in all the plants of the same genus. The same uniformity seems to characterise all the different genera of the same natural order. The different sorts of hair which form the down upon the surface of plants, were imperfectly set down by Grew in 1682, and by Malpighi in 1686. M. Guettard was the first who examined the subject both as a botanist and a philosopher. His observations were published in 1747.

HAJYPOOR, a fertile district of Hindostan, in the province of Bahar, on the eastern side of the Ganges, and between 25° and 26° of N. lat. It is well cultivated, and produces opium, saltpetre, and a good breed of horses. It is now included in the collectorship of Sarrun.

Hajypoor, the capital of the above district, is situated on the north-east bank of the Ganges, at its confluence with the Gunduck. This town was founded 1350, by Ilias Hajy, the second independent Mahommedan king of Bengal, who caused it to be fortified; and it was for a long time the residence of the governor of the district. In the year 1574 it was taken by the troops of Akbar, after a gallant resistance; since which period the fortifications have been neglected; but the town continues to flourish.

HAKE, *n. s.* } Goth. hackle. The stock-
Hakot, *n. s.* } fish or poor-jack.

Hake, is the English name of a fish common in the British sea, called by some zoologists

merlucius and lucius marinus. These fish were used of old dried and salted. Hence the proverb in Kent, As dry as a hake. See GADUS.

HAKEWILL (George), a learned English divine, the son of a merchant in Exeter, where he was born in 1579. He was educated at Oxford, became fellow of Exeter College, and was afterwards elected rector of it. He was appointed chaplain to prince Charles, archdeacon of Surrey, and rector of Heanton; but was never promoted higher, on account of his zealous opposition to prince Charles's marriage with the infanta of Spain, for which he was imprisoned in 1621. His chief work is, An Apology or Declaration of the Power and Providence of God in the Government of the World, folio, 1639. He died at Heanton in 1649.

HAKEWILL (William), elder brother to George, was educated at Exeter College; whence he removed to Lincoln's Inn, and became eminent in the law. He was a puritan, and had great interest with the republican party during the civil war. He wrote several tracts: particularly, The Liberty of the Subject against the pretended Power of Impositions; 1641, 4to.

HAKLUYT (Richard), a naval historian, supposed to have been born in London about 1533, and descended of a respectable family in Herefordshire. He was educated at Westminster, and in 1570 removed to Oxford; where he applied to the study of cosmography, and read public lectures in that science. Sir Edward Stafford being sent ambassador to France, in 1583, Mr. Hakluyt was one of his attendants. He was at this time M. A., and professor of divinity. In 1585 he was made prebendary of Bristol, during his residence at Paris. In searching the French libraries, he found a valuable history of Florida, which he published at his own expense, in French, and soon after revised and republished Peter Martyr De Orbe Novo. After five years residence in France he returned to England. In 1589 he published his Collection of Voyages, in one vol. folio, which, in 1598, was republished in three. In 1605 he was made prebendary of Westminster, which, with the rectory of Wetheringset, was the summit of his preferment. He died in 1616. He was a faithful historian. His works, besides those above mentioned, are, 1. A Collection of Voyages and Discoveries, a small volume. 2. The Discoveries of the World, from the Original to the year 1555, written in the Portugal tongue by Antony Galvano; corrected, much amended, and translated into English, by Richard Hakluyt. 3. Virginia richly valued by the Description of the Main Land of Florida, her next Neighbour, &c., written by a Portugal gentleman of Elvas, and translated by Richard Hakluyt. Besides these, he left several MSS. which were printed in Purchas's collection.

HAL, in local names, is derived like *al* from the Sax. healle, i. e. a hall, a palace. In Gothic *alh* signifies a temple, or any other famous building.

HAL'BERD, *n. s.* } Fr. *halebarde*, *halebar-*
HALBERDIER, *n. s.* } *dier*; Dutch, *hallebarde*, from *harde* an axe, and *hale* a court, halberds being the common weapons of guards. A battle-axe fixed to a long pole. Halberdier one who is armed with a halberd.

Advance thy *halberd* higher than my breast.
Shakspeare.

Our *halberds* did shut up his passage. *Id.*

The duchess appointed him a guard of thirty *halberdeers*, in a livery of murrey and blue, to attend his person. *Bacon.*

The king had only his *halberdeers*, and fewer of them than used to go with him. *Clarendon.*

Four knaves in garbs succinct, a trusty band,
Caps on their heads, and *halberds* in their hand,
Draw forth to combat on the velvet plain. *Pope.*

HALBERDS, or HALBERTS, are a kind of spears, carried by the sergeants of foot and dragoons. The shaft is about five feet long, and made of ash or other wood. The head is armed with a steel point, not unlike the point of a two-edged sword. Besides this sharp point, which is in a line with the shaft, there is also a small cross bar of steel. This weapon is useful in determining the ground between the ranks, and adjusting the files of a battalion. It was anciently a common weapon in the army, where there were companies of halberdiers.

HALBERSTADT, a principality of Prussia, in the government of Magdeburg, having a territorial extent of about 580 square miles, and a population of 120,000. It is intersected by the Hartz Mountains and several rivers, as the Aller, the Bude, and the Halzemme, but the latter are only of secondary size. It is fertile in flax and pasturage. The independent bishopric of this name was formed in 1814, and secularised by the treaty of Westphalia by which it was given to Prussia.

HALBERSTADT, a city of Prussia, capital of the foregoing province, is situated in the great road from Brunswick to Leipsic. It is of good size and great antiquity: containing above 13,000 inhabitants. It had formerly, besides the cathedral, three collegiate chapters: which have been suppressed. The Catholics have still, however, three churches and two monasteries; the Lutherians five churches. The principal buildings, besides the cathedral, are the Jewish synagogue; the ancient palace, now converted into a town-house; and the excise office. There are also a cathedral school, with a library; a cabinet of natural history; a seminary for school-masters; and a school for midwifery; worth notice. In 1784 a literary society was established here, from which several publications have emanated. Here are several small manufactures of woollen, linen leather, gloves, paper, wax, and cobalt. A remarkable diet of the German empire was held here in 1134. Twenty-eight miles south-west of Magdeburg, and sixty-two south-east of Hanover.

HALCYON, *n. s.* & *adj.* Latin *halcyo*. A bird, of which it is said that she breeds in the sea, and that there is always a calm during her incubation: hence the adjective figuratively signifies placid, quiet, still, peaceful.

Such smiling rogues, as these, sooth every passion,
Bring oil to fire, snow to their colder moods;
Renege, affirm, and turn their *halcyon* beaks
With every gale and vary of their masters.
Shakspeare.

When great Augustus made war's tempest cease,
His *halcyon* days brought forth the arts of peace.
Denham.

Amidst our arms as quiet you shall be,
As *halcyons* brooding on a Winter sea. *Dryden.*

No man can expect eternal serenity and *halcyon* days from so incompetent and partial a cause, as the constant course of the sun in the equinoctial circle. *Bentley.*

HALCYON. See ALCEDO.

HALCYON DAYS, in antiquity, a name given to seven days before, and as many after the winter solstice; when the halcyon, invited by the calmness of the weather, laid her eggs in nests built in the rocks, close by the brink of the sea. About this time the sea is generally calm, and hence the phrase became proverbial.

HALDANE (John), a very eccentric genius of the eighteenth century, born in Edinburgh about the end of the seventeenth. He was one of the old Covenanters, commonly called Cameronians, and adhered to their principles, both religious and political, in their most rigid form; of which he gave evidence by publishing various pamphlets in support of them. Of these the most remarkable was entitled The Active Testimony of the true Presbyterians of Scotland, against the late unjust invasion by Charles pretended prince of Wales, and William pretended duke of Cumberland, &c., published at Edinburgh, in 1746, 8vo. He died about 1770.

HALDE (John Baptist Du), a learned French Jesuit, born at Paris in 1674. He was well versed in Asiatic geography, and compiled a work entitled Grand Description de la Chine and de la Tartarie, from original memoirs of the Jesuitical missionaries, in 4 vols. folio. He was also concerned in a collection of letters begun by father Gobien, called Des Lettres Edifiantes, in 18 vols.; and published some Latin poems and orations. He died in 1743.

HALE, *v. a.* } Dut. *halen;* Fr. *haler.* To
HALER, *n. s.* } drag by force, or pull violently: he who pulls and hales.

Give diligence that thou mayest be delivered from him, lest he *hale* thee to the judge. *Luke.*

He by the neck hath *haled*, in pieces cut,
And set me as a mark on every butt. *Sandys.*

Fly to your house;
The plebeians have got your fellow tribune,
And *hale* him up and down. *Shakspeare.*

My third comfort,
Starred most unluckily, is from my breast
Haled out to murder. *Id.*

Thither by harpy-footed furies *haled*,
At certain revolutions, all the damned
Are brought. *Milton.*

This sinistrous gravity is drawn that way by the great artery, which then subsideth, and *haleth* the heart unto it. *Browne.*

Who would not be disgusted with any recreation, in itself indifferent, if he should with blows be *haled* to it when he had no mind. *Locke.*

In all the tumults of Rome, though the people proceeded sometimes to pull and *hale* one another about, yet no blood was drawn 'till the time of the Gracchi. *Swift.*

HALE (Sir Matthew), lord chief justice of the king's bench in the reign of Charles II., was the son of Robert Hale, esq., a barrister of Lincoln's Inn, and was born in 1609. He was educated at Oxford, where he made a considerable progress in learning; and, applying to the study of the law, entered into Lincoln's Inn. Noy, the attorney general, and Mr. Selden, took much notice of him. During the civil wars, he was employed in his practice by the king's party; and was appointed by the parliament one of the commissioners to treat with the king. After the death of king Charles he was appointed with several others to consider of the Reformation of the law. In 1653 he was by writ made sergeant at law, and soon after appointed one of the justices of the common pleas. Upon the death of Oliver Cromwell, he refused to accept of the new commission offered him by Richard his successor, and was returned for Gloucestershire in the parliament which called home Charles II. Soon after he was made lord chief baron of the exchequer; but declined the honor of knighthood, till lord chancellor Hyde, sending for him upon business when the king was at his house, said, 'There is your majesty's modest chief baron;' upon which he was unexpectedly knighted. He was one of the principal judges that sat in Clifford's Inn, in order to adjust the differences between landlord and tenant, after the fire of London, in which he behaved to the satisfaction of all parties concerned. In his post of chief baron he acted with inflexible integrity. He dismissed a duke, who wished to state to him a cause he was to bring before him, with an intimation that he never received ex parte or private evidence. The duke complained of his rudeness to the king, who told him he verily believed he would have used him no better had he gone to solicit him in his own cause. In one of his circuits, a gentleman who had a trial at the assizes sent him a buck for his table. When judge Hale therefore heard his name, he asked 'if he was not the person who had sent him the venison?' and, finding he was, told him, 'that he could not suffer the trial to go on till he had paid him for his buck.' In 1671 he was advanced to be lord chief justice of the king's bench; but about four years after this promotion, his health declining, he resigned his post in February 1675-6, and died in December following. This excellent man, who was an ornament to the bench and to his country, wrote, 1. An Essay on the Gravitation and Non-gravitation of Fluid Bodies. 2. Observations touching the Torricellian Experiment. 3. Contemplations, Moral and Divine. 4. The Life of Pomponius Atticus, with political and moral Reflections 5. Observations on the Principles of natural Motion. 6. The primitive Origination of Mankind. He also left a great number of MSS. in Latin and English, upon various subjects; among which are, his Pleas of the Crown, since published by Mr. Emlyn in 2 vols. folio; and his Original Institution, Power, and Jurisdiction, of Parliaments.

HALES (John), an English theologian, was born at Bath in 1584, and educated at Corpus Christi College, Oxford, where he took the degree of B.D. In 1605 he was elected a fellow of Merton College, through the influence of the warden, Sir Henry Saville, whom he assisted in preparing for the press his edition of St. Chrysostom. In 1612 he was appointed professor of Greek at Oxford, and in 1613 was made a fellow of Eton. In 1618 he went to the Hague, as chaplain to the English ambassador, Sir Dud

ley Carleton, and attended the synod of Dort, of the proceedings of which he wrote an able account. These debates occasioned his conversion from Calvinism to Arminianism. In 1639 he was made a canon of Windsor, but held the office only till the beginning of the civil war. He afterwards remained for some time in seclusion, and, having in 1645 been deprived of his fellowship, was obliged to sell his library to obtain the means of subsistence. This latter circumstance however is not reconcilable with the fact of his having made considerable bequests in his will. He published nothing of importance during his life; but a collection of his writings appeared in 1659, entitled Golden Remains of the ever-memorable Mr. John Hales, of Eton College, 4to.

Hales, Lord. See Dalrymple.

Hales (Stephen), D.D. and F.R.S., a celebrated divine and philosopher, born in 1677. In 1696 he was entered at Benet College, Cambridge; admitted a fellow in 1703, and became B. D. in 1711. He soon discovered a genius for natural philosophy. Botany was his first study, which he often prosecuted among Gogmagog hills, along with Dr. Stukely. He likewise studied astronomy, chemistry, and anatomy; and invented a curious method of obtaining a representation of the lungs in lead. Having made himself acquainted with the Newtonian system, he contrived a machine for showing the phenomena on much the same principles with that of the orrery, afterwards made by Mr. Rowley. About 1710 he was presented to the perpetual cure of Teddington, near Twickenham; afterwards to the living of Porlock, in Somersetshire, which he exchanged for that of Faringdon, in Hampshire. On the 13th of March, 1718, he was elected F.R.S.; and on the 5th of March, 1719, he published an account of some experiments he had made on the effect of the sun's warmth in raising the sap in trees, which procured him the thanks of the society. On the 14th of June, 1725, he exhibited a treatise on the same subject, which, being highly applauded by the society, he enlarged and improved; and in April, 1727, published it under the title of Vegetable Statics. This work he dedicated to the prince of Wales, afterwards king George II.; and he was the same year chosen one of the council of the Royal Society. A second edition of this work was published in 1731; in the preface to which he promised a sequel, which he published in 1733, under the title of Statical Essays, &c. In 1732 he was appointed one of the trustees for establishing a new colony in Georgia. On the 5th of July, 1733, the University of Oxford made him D.D., although he had been educated at Cambridge. In 1734 he published, anonymously, A friendly Admonition to the Drinkers of Brandy and other spirituous Liquors; and a Sermon preached at St. Bride's before the rest of the trustees for establishing the colony in Georgia. In 1739 he printed Philosophical Experiments on Sea-water, Corn, Flesh, and other Substances, 8vo. dedicated to the lords of the admiralty. In 1739 he also exhibited to the society an account of some experiments towards the discovery of medicines for dissolving the stone in the kidneys and bladder, and preserving meat in long voyages; for which he recived Sir Godfrey Copley's gold medal. In 1740 he published some account of Experiments and Observations on Mrs. Stephens's Medicines for dissolving the Stone, in which their dissolvent power is enquired into and demonstrated. In 1741 he read before the society an account of a ventilator, for conveying fresh air into mines, hospitals, prisons, and the close parts of ships. In 1743 he read before the society a description of a method of conveying liquors into the abdomen during the operation of Tapping; afterwards printed in their Transactions. In 1745 he published some Experiments and Observations on Tar-water, which he had been induced to make by the publication of a work called Siris, in which Dr. Berkley, bishop of Cloyne, had recommended tar-water as a universal medicine. In 1746 he communicated to the Royal Society a proposal for bringing small passable stones soon, and with ease, out of the bladder. In the Gentleman's Magazine for July, 1747, he published an Account of a very considerable Improvement of a Back-heaver, by which it became capable of clearing corn of the very small grain, seeds, blacks, smut-balls, &c., to such perfection as to make it fit for seed-corn. In 1748 he communicated to the society a proposal for checking the progress of fires; with two memoirs, one on ventilators, and the other on some experiments in electricity. All these papers were printed in the Royal Society's Transactions. In 1749 his ventilators were fixed in the Savoy prison; and the benefit was so great, that though from eighty to 100 in a year often died of the gaol distemper before, yet, from 1749 to 1752 inclusive, only four persons died, and, of those four, one died of the small-pox, and another of intemperance. In 1750 he published some considerations on the causes of earthquakes; occasioned by the shocks felt that year in London; and exhibited an examination of the strength of several purging waters, especially that of Jessop's well. Both these are printed in the Philosophical Transactions. He had now been several years honored with the friendship of Frederick prince of Wales: who frequently visited him at Teddington. Upon that prince's death in 1750 he was appointed almoner to the princess dowager. In 1752 he was chosen by the college of physicians to preach the sermon called Crowne's Lecture: Dr. W. Crowne having left a legacy for a sermon to be annually preached on 'the wisdom and goodness of God displayed in the formation of man.' Dr. Hales's text was in Job xii. 12. In 1753 Dr. Hales was elected a member of the Academy of Sciences at Paris. This year he published in the Gentleman's Magazine Farther Considerations about the best Method of drawing the Foul Air out of the Sick Rooms of occasional Army Hospitals and Private Houses in Town; with many other curious particulars on the Use of Ventilators: also a Description of a Sea Gauge, which he invented to measure unfathomable depths. This paper he had drawn up about 1732 or 1733 for the late Colin Campbell, esq., who employed the ingenious Mr. Hawksbee to make the machine it describes, which was tried

in various depths, and answered with great exactness, but was at last lost near Bermuda. In 1754 he communicated to the society some experiments for keeping water and fish sweet with lime-water; an account of which was published in the Philosophical Transactions. He continued to enrich their memoirs with many useful articles from this time till his death, particularly a method of forwarding the distillation of fresh from salt water, by blowing showers of fresh air up through the latter during the operation. Being nominated by king George II. a canon of Windsor, he engaged the princess to request his majesty to recal his nomination. He died at Teddington, 1761, aged eighty-four; and the princess of Wales erected a monument to his memory in Westminster Abbey.

HALESIA, in botany, a genus of the monogynia order, and dodecandria class of plants: natural order eighteenth, bicornes: CAL. quadridentated, superior: COR. quadrifid: the nut quadrangular and dispermous.

HALF, *n. s.* & *adv.*
HALF'BLOOD, *n. s.*
HALF'BLOODED, *adj.*
HALF'CAP, *n. s.*
HALF'ENDEAL, *n. s.*
HALF'FACED, *adj.*
HALF'HATCHED, *adj.*
HALF'HEARD, *adj.*
HALF'MOON, *n. s.*
HALF'PENNY, *n. s.*
HALF'PIKE, *n. s.*
HALF'PINT, *n. s.*
HALF'SCHOLAR, *n. s.*
HALF'SEAS-OVER,
HALF'SIGHTED, *adj.*
HALF'SPHERE, *n. s.*
HALF'STRAINED, *adj.*
HALF'SWORD, *n. s.*
HALF'WAY, *adj.* & *adv.*
HALF'WIT, *n. s.*
HALF'WITTED, *adj.*

Pl. halves. Saxon healp. Half signifies an exact moiety, one part of two, an equal part; it is used frequently in composition, to signify imperfection, as half-blooded; half-heard; half-scholar; half-witted, &c.: half-penny is a coin of which two make a penny. Half-pint, a measure which is the fourth part of a quart. Half-seas-over is a familiar phrase to describe a person half drunk. When added to any word denoting personal qualities, it generally notes contempt: the other compounds are too obvious to require a minute explanation. This word in some instances has a plural signification when a number is divided. Halfendeal, Sax. half and dæl.

An *half* acre of land. 1 *Sam.* xiv. 14.

——— on Monday next, at quarter night
Shall fall a rain, and that so wild and wood
That *half* so gret was never Noes flood.
Chaucer. The Milleres Tale.

I crouche thee from elves and from wightes
There with the nightspel said he, anon, rightes
On foure *halves* of the house aboute,
And on the threswold of the dore withoute. *Id.*

Yeve us a bushel whete, or malt, or reye,
A goddes kichel, or a trippe of chese,
Or elles what you list, we may not chese;
A goddes *halfpenny*, or a masse peny,
Or yeve us of your braun.
Chaucer. The Sompnoures Tale.

Proud incroaching tyranny
Burns with revenging fire, whose hopeful colours
Advance a *half-faced* sun, striving to shine.
Shakspeare.

With certain *half caps* and cold moving nods,
They freze me into silence. *Id.*

This same *half-faced* fellow, Shadow; give me this man: he presents no mark to the enemy: the foeman may with as great aim level at the edge of a penknife. *Id.*

Bardolph stole a lute-case, bore it twelve leagues, and sold it for three *halfpence*. *Id.*

I thank you; and sure, dear friend, my thanks are too dear of a *halfpenny*. *Id.*

The let alone lies not in your good will.
—Nor in thine, lord.
—*Half-blooded* fellow, yes. *Id.*

There shall be in England seven *halfpenny* loaves sold for a penny. *Id.*

Many might go to heaven with *half* the labour they ge to hell, if they would venture their industry the right way. *Ben Jonson*

Well chosen friendship, the most noble
Of virtues, all our joys makes double,
And into *halves* divides our trouble. *Denham.*

See how in warlike muster they appear,
In rhombs and wedges, and *half-moons* and wings.
Milton.

Or what but riches is there known,
Which man can solely call his own;
In which no creature goes his *half*,
Unless it be to squint and laugh? *Hudibras.*

Had the land selected of the best,
Half had come hence, and let the world provide the rest. *Dryden.*

I am *half-seas o'er* to death;
And, since I must die once, I would be loth
To make a double work of what's *half* finished.
Id.

I go with love and fortune, two blind guides,
To lead my way; *half* loth, and *half* consenting.
Id.

No mortal tongue can *half* the beauty tell;
For none but hands divine could work so well.
Id.

He cheats for *halfpence*, and he doffs his coat
To save a farthing in a ferry-boat. *Id.*

Which shall be heir of the two male twins, who, by the dissection of the mother, were laid open to the world? Whether a sister by the *half-blood* shall inherit before a brother's daughter by the whole blood?
Locke.

Of our manufacture foreign markets took off one *half*, and the other *half* were consumed amongst ourselves. *Id.*

The various ways of paying the salute with the *half-pike*. *Tatler.*

The council is made up *half* out of the noble families, and *half* out of the plebeian. *Addison.*

Half the misery of life might be extinguished, would men alleviate the general curse by mutual compassion. *Id.*

Her beauty in thy softer *half*
Buried and lost, she ought to grieve. *Prior.*

Here, thick as hailstones pour,
Turnips, and *half-hatched* eggs, a mingled shower,
Among the rabble rain. *Gay.*

Natural was it for a prince, who had proposed to himself the empire of the world, not to neglect the sea, the *half* of his dominions. *Arbuthnot*

Not added years on years my task could close,
Back to thy native islands mightest thou sail,
And leave *half-heard* the melancholy tale. *Pope.*

One *half-pint* bottle serves them both to dine;
And is at once their vinegar and wine. *Id.*

Never admit this pernicious coin, no, not so much as one single *halfpenny*. *Swift.*

You will wonder how Wood could get his majesty's broad seal for so great a sum of bad money, and that the nobility here could not obtain the same favor, and make our own *halfpence* as we used to do. *Id.*

We have many *half-scholars* now a-days, and there is much confusion and consistency in the notions and opinions of some persons. *Watts.*

HALIÆTOS. See Falco.

HALI-BEIGH, first dragoman, or interpreter at the grand seignior's court in the seventeenth century, was born of Christian parents in Poland; but, having been taken by the Tartars when a boy, they sold him to the Turks, who brought him up in their religion in the seraglio. His original name was Bobowski. He learned many languages, and Sir Paul Ricaut owns he was indebted to him for several things, which he relates in his Present State of the Ottoman Empire. He held a great correspondence with the English, and intended to return into the Christian church, but died in 1675, before he could accomplish his design. Dr. Hyde published his book Of the Liturgy of the Turks, their Pilgrimages to Mecca, &c., at Oxford, 1691. He translated the catechism of the church of England, and the Bible, into the Turkish language. The MS. is lodged in the library of Leyden. He wrote likewise a Turkish grammar and dictionary.

HA'LIBUT, *n. s.* A sort of fish.

HALICARNASSUS, in ancient geography, a principal town of Caria, built by the Argives, and situated between two bays, the Ceramicus and Jasius. It was anciently called Zephyra, and was the royal residence of Mausolus.

HA'LIDOM, *n. s.* palıȝ ðom, holy judgment, or palıȝ and dame, for lady. Our blessed lady. In this sense it should be halidam.

By my *halidom*, quoth he,
Ye a great master are in your degree. *Hubberd.*

HALIFAX, a very ancient, populous, and flourishing market town and parish of England, in the West Riding of Yorkshire, famous for the clothier trade. The parish contains above 12,000 people, and is above thirty miles in circumference. Besides the established church at Halifax, and sixteen meeting-houses, it has twelve chapels, two of which are parochial. The principal articles now manufactured, in and about Halifax, are shalloons, plain Russels, lastings and amens, serges, moreens, tammies, wildbores, calamancoes, &c. For the convenience of the manufacturers, there has been erected an elegant edifice called the Piece Hall; it is in the form of an oblong square, occupying a space of 10,000 square yards, having 315 distinct rooms for the lodgment of goods, which are open for sales once a week. The weavers of the surrounding district bring their goods undressed to this market. The inhabitants here and in the neighbouring towns are so entirely employed in these manufactures, that agriculture is little minded. Most of their provisions are brought from the North and East Ridings, and from Lancashire, Cheshire, Nottinghamshire, and Warwickshire. The markets are much crowded. The houses are of stone, but irregularly built. Halifax lies sixteen miles south-west of Leeds, forty-two south-west of York, and 197½ N. N.W. of London.

Halifax, a county of the province of Nova Scotia, containing Halifax, the capital, the townships of Londonderry, Truro, Onslow, Colchester, Lawrence, Southampton, Canso, and Tinmouth. It has numerous bays and rivers, which render it accessible from the sea.

The town of Halifax is situated on the west side of a spacious bay or harbour called Chebuctoo, where 1000 of the largest ships might ride with safety. It is 236 feet above the level of the sea; and is laid out in oblong squares, all the streets being at right angles. The town and suburbs are about two miles in length, and about a quarter of a mile in breadth. At the north extremity is the king's naval yard, supplied with stores of every kind. The harbour is open at all seasons of the year. Halifax is entrenched with forts of timber. The country around the town is barren; but the imports of Great Britain alone, into the port, amounted in 1810 to £600,000. It is forty miles south-west from Truro, eighty-four east from Annapolis on the bay of Fundy, and 157 south-east from St. Ann in New Brunswick. Population 8000. Some accounts state it much higher. Long. 63° 35′ 45″ W., lat. 44° 44′ N.

Halifax, a county of Virginia, United States, bordering on the state of North Carolina. It is about forty-two miles long, and thirty-nine broad.

Halifax, one of the middle districts of North Carolina, bounded on the north by the state of Virginia, east by Edenton district, west by Hillsborough, and south by Newbern. It is divided into seven counties, namely, Northampton, Halifax, Martin, Edgecomb, Warren, Franklin, and Nash.

Halifax, a county of North Carolina, in the above district, bounded north by Northampton, south by Edgecomb, east by Bertie, and west by Warren.

Halifax, the chief town of the above county, is situated on the west bank of the Roanoke, and regularly laid out. Seventy-five miles north-east from Fayetteville, and 255 west by south from Philadelphia.

HA'LIMASS, *n. s.* palıȝ and mass. The feast of All-souls.

She came adorned hither like sweet May;
Sent back like *halimass*, or shortest day.
Shakspeare.

HALIOTIS, the ear-shell, a genus of insects belonging to the order of vermes testaciæ. This is an animal of the snail kind, with an open shell resembling an ear. There are seven species, distinguished by the figure of their shells.

HA'LITUOUS, *adj.* Lat. *halitus*. Vaporous; fumous.

We speak of the atmosphere as of a peculiar thin and *halituous* liquor, much lighter than spirit of wine. *Boyle.*

HALL, *n. s.* Sax. pal; Dut. *halle*. A court of justice; a manor-house; so called because in it were held courts for the tenants. The public room of a corporation: the vestibule, or first large room in a mansion.

For why? me thouten by Sainct Gile
That all wos stone of berile
Bothe the castell and the toure,
And eke the *hall* and every houre.
Chaucer. House of Fame

And she the moste serviceable of all,
Hath every chamber arraied, and his *hall*.
Id. The Clerkes Tale.

Min is the ruin uf the highe *ha'les*
The falling of the toures and of the walles
Upon the minour or the carpenter.
H. The Knightes Tale.

That light we see is burning in my *hall*.
Shakspeare.

Courtesy is sooner found in lowly sheds
With smoky rafters, than in taps'try *halls*
And courts of princes. *Milton.*

With expedition on the beadle call,
To summon all the company to the *hall*. *Garth.*

Captain Sentry, my master's nephew, has taken possession of the *hall* house, and the whole estate.
Addison.

O lost too soon in yonder house or *hall*. *Pope.*

And thus they wandered forth and hand in hand,
Over the shining pebbles and the shells,
Glided along the smooth and hardened sand,
And in the worn and wild receptacles
Worked by the storms, yet worked as it were planned,
In hollow *halls*, with sparry roofs and cells,
They turned to rest. *Byron. Don Juan.*

Hall (John), an English surgeon, who flourished in the reign of queen Elizabeth, at Maidstone in Kent. He was born in 1529, and published, 1. A Compendium of Anatomy; and, 2., A Collection of Hymns, with musical notes, in 1565: besides several tracts on medicine and surgery.

Hall (John), a poet of distinguished learning, born in Durham, in 1627, and educated at Cambridge In 1646, when he was but nineteen years of age, he published his Horæ Vacivæ, or Essays; and the same year appeared his Poems. He translated from the Greek, Hierocles upon the golden verses of Pythagoras; to which is prefixed an account of the translator and his works, by John Davies of Kidwelly. He also translated Longinus, and died in 1656, aged twenty-nine.

Hall (Joseph), an eminent English prelate, born at Ashby de la Zouch, in 1574, and educated at Cambridge. He became professor of rhetoric in that university, and was made rector of Halsted, prebendary of Wolverhampton, dean of Worcester, bishop of Exeter, and lastly of Norwich. His works testify his zeal against popery, and are much esteemed. In July 1616 he attended lord Doncaster into France, and upon his return was appointed by king James one of the divines who should attend him into Scotland. In 1618 he was sent to the synod of Dort, and appointed to preach a Latin sermon before that Assembly. Being obliged to return before the synod broke up, on account of his health, he was by the states presented with a gold medal. He wrote, 1. Miscellaneous Epistles; 2. Mundus alter et idem; 3. A Just Censure of Travellers; 4. The Christian Seneca; 5. Satires, in six books; 6. A Century of Meditations; and many other works, which, besides the satires, make 5 vols. He died in 1656.

Hall, in architecture. Vitruvius mentions three kinds of halls; the tetrastyle, with four columns supporting the platform or ceiling; the Corinthian, with columns all round let into the wall, and vaulted over; and the Egyptian, which had a peristyle of insulated Corinthian columns, bearing a second order with a ceiling. The hall is properly the finest as well as first member of an apartment: and in the houses of ministers of state, magistrates, &c., is the place where they despatch business, and give audience. In very magnificent buildings, where the hall is larger and loftier than ordinary, and placed in the middle of the house, it is called a saloon. The length of a hall should be at least twice and a quarter its breadth; and in great buildings, three times its breadth. The height may be two-thirds of the breadth; and, if made with an arched ceiling, it will be much handsomer, and less liable to accidents by fire. In this case, its height is found by dividing its breadth into six parts, five of which will be the height from the floor to the under side of the key of the arch.

Hall, or Suabian Hall, a fortified town of Wirtemberg, the capital of the circle of the Jaxt, is beautifully situated on the Kocher. The town-house, the academy, and the church of St. Michael, are worthy of notice. It has two suburbs; and 5500 inhabitants, chiefly Lutherans, who derive their chief means of support from the brine springs, which produce annually from 70,000 to 80,000 cwt. of salt. Here was concluded, in 1610, a famous convention or union of the Protestant princes of the empire. Fourteen miles east of Lowenstein, and thirty north-east of Stutgard. Long. 9° 50′ E., lat. 49° 6 N.

Hall in Innthal, a town of the Tyrol, having a celebrated mint; but still more remarkable for its salt works, which produce annually above 270,000 cwt of salt. The salt, found in mines about four miles off, is dissolved in large pits; and the process of evaporation takes place in the town. Nine miles north-east of Inspruck, and forty-eight north of Brixen.

HALLAND, a mountainous province of Sweden, in South Gothland, bounded by West Gothland, Smaland, Scania, and the Cattegat. Its superficial extent is about 1465 square miles, and its population 73,600. It is covered by large woods of oak and birch.

HALLE, a large town of Prussia, in Saxony, government of Merseburg, standing on both sides of the Saale, over which it has five bridges. It is an irregular square, having several suburbs; of which two, Glaucha and Neumarkt, are, strictly speaking, separate towns. The population, including these, amounts to 25,000. Here a military academy of ancient date was converted by the elector of Saxony, in 1699, into a university, which has always maintained a high reputation. In the Glaucha is the orphan hospital, and Canstein's establishment for printing, erected in 1712: this is said to have produced since that time nearly 1,000,000 of New Testaments, and 2,000,000 of Bibles. Here are two public libraries. Among the minor establishments are a cabinet of natural history and mechanics, and an apothecaries' hall. Halle has given birth to a great number of men of eminence, as Hoffmann, Unze, Michaelis, Nemeier, and Handel. It contains several buildings which, if not splendid, are remarkable—such as the red tower, which rises to a height of 260 feet, the church of St. Ulrick, and the hotel de ville, which contains the hospital. Of its castle only one wing now remains, used as a Calvinist church. The Luther-

ans have here seven parish churches, and the Jews a synagogue. The inhabitants have manufactures of woollens, stockings, silk, leather, buttons, hardware, &c.; but the principal is that of starch. In a valley between the town and the Saale is a celebrated salt spring, whose annual produce is 4000 tons: on the other side of the river is another, wrought by the government, which produces nearly 12,000 tons more. Pit-coal is found in the neighbourhood.

Halle, three days after the battle of Jena, was the scene of an obstinate conflict between the Prussians and French. Twenty-two miles south-east of Eisleben, twenty-two south-west of Dessau, and fifty-six south by east of Magdeburg.

HALLEIN, a town in the duchy of Salzburg, on the Salze, belonging to Austria. It has manufactures of needles and cotton; and the salt works, which are carried on on account of the government, are of great importance: the quantity yearly sold being from 13,000 to 15,000 tons, worth about £120,000 sterling, of which the half is said to be clear profit. The salt is found in masses in the interior of a mountain called Durnberg, about four miles from the town.

HALLELUJAH, *n. s.* Heb. הללויה, praise ye the Lord. A song of thanksgiving.

> Then shall thy saints
> Unfained *hallelujahs* to Thee sing,
> Hymns of high praise. *Milton.*
>
> Singing those devout hymns and heavenly anthems, in which the church militant seems ambitious to emulate the triumphant, and echo back the solemn praises and *hallelujahs* of the celestial choirs. *Boyle.*

Hallelujah, or Allelujah, is a term of rejoicing, first introduced from the Jewish into the Christian church, by St. Jerome. It occurs in several of the Psalms, particularly from Ps. cxlv. to cl. For a considerable time it was only used once a year in the Latin church, viz. at Easter; but in the Greek church it was much more frequent. St. Jerome mentions its being sung at the interments of the dead, which still continues in that church, and on some occasions in Lent. Gregory the Great appointed it to be sung all the year round in the Latin church, which raised some complaints against him; as introducing the ceremonies of the Greek church into the Roman. But he excused himself by asserting that it had been the ancient usage of Rome, and introduced under pope Damasus.

HALLER (Albert Van), an eminent physician, born at Bern on the 16th of October, 1708. He very early showed a great genius for literature; and his progress in his studies was rapid almost beyond belief. When other children were beginning only to read he was studying Bayle and Moreri; and at nine he was able to translate Greek, and beginning to study Hebrew. His education was interrupted by the death of his father, when he was in his thirteenth year. After this he was sent to the public school at Bern, where he was not only distinguished for his knowledge in Greek and Latin, but also for his poetical genius. His poetical essays, published in the German language, were read and admired throughout the empire. In his sixteenth year he began to study medicine at Tubingen, under Duvernoy and Camerarius; and continued there for two years, when the great reputation of Boerhaave drew him to Leyden. Ruysch was also still alive, and Albinus was rising into fame. Animated by such examples, he spent all the day and great part of the night in the most intense study; and the proficiency which he made gained him the universal esteem both of his teachers and fellow students. From Holland, in 1727, he came to England, where he was honored with the friendship of Douglas, Cheselden, and Sir Hans Sloane, P. R. S. He next went to France; where, under Winslow and Le Dran, he had new opportunities of prosecuting the study of anatomy. But his zeal was greater than popular prejudice, even in the enlightened city of Paris, could tolerate. An information being lodged against him for dissecting dead bodies, he was obliged to make a precipitate retreat to Basil, where he became pupil to the celebrated Bernouilli. Thus improved by the most distinguished teachers of that period, and endued with uncommon natural abilities, he returned to Bern in his twenty-sixth year, where he stood candidate first for the office of physician to an hospital, and afterwards for a professorship. But he was disappointed in both; and it was even with difficulty that he obtained the appointment of keeper of a public library at Bern. This, though by no means suited to his great abilities, afforded him an opportunity for that extensive reading by which he has been so justly distinguished. The neglect of his merit neither diminished his ardor for medical pursuits, nor detracted from his reputation at home or abroad. Soon after he was nominated a professor in the university of Gottingen, by king George II. The duties of this important office he discharged, with honor to himself and advantage to the public, for seventeen years. Nor was it long necessary for him, in this arduous undertaking, to labor alone. The example of the preceptor was followed by his pupils. Zinn, Zimmerman, Caldani, and many others, labored to prosecute and to perfect the discoveries of their great master. Nor were the labors of Dr. Haller, during his residence at Gottingen, confined to one department of science. To him the Anatomical Theatre, the School of Midwifery, the Chirurgical Society, and Royal Academy of Sciences at Gottingen, owe their origin. Such distinguished merit could not fail to meet with a suitable reward. King George II. not only honored him with every mark of attention himself, but procured him letters of nobility from the emperor. On the death of Dillenius he had an offer of the professorship of botany at Oxford; the states of Holland invited him to the chair of the younger Albinus, and the king of Prussia was anxious that he should be the successor of Maupertuis at Berlin. Marshal Keith wrote to him in the name of his sovereign, offering him the chancellorship of the university of Halle. Count Orlow invited him to Russia, in the name of the empress, offering him a distinguished place at St. Petersburgh. The king of Sweden conferred on him an unsolicited honor, by raising him to the rank of knight of the polar star; and the emperor of Germany

onored him with a personal visit. He continued, owever, at Gottingen, anxious to extend the rising me of that medical school. But, after seventeen ars residence, an ill state of health rendering im less fit for the important office which he eld, he obtained permission from the regency f Hanover to return to Bern. His fellow citi- ens were now as sensible as others of his supe- or merit. A pension was settled upon him for fe, and he was elected into the most important ffices in the state. He was the first president, s well as the great promoter, of the Œconomical ociety at Bern; and may be considered as the ounder of the Orphan Hospital there. He con- nued to write till within a few days of his eath, which happened in his seventieth year, n the 12th of December, 1777. His Elementa hysiologiæ and Bibliotheca Medicinæ afford ndeniable proofs of his penetrating genius and olid judgment. But he was not more distin- uished as a philosopher than beloved as a man; nd not more eminent for his improvement in very department of medical science, than for his iety to God, and benevolence to mankind.

HALLERIA, in botany, African fly-honey- uckle, a genus of the angiospermia order, and idynamia class of plants; natural order fortieth, ersonatæ: CAL. trifid: COR. quadrifid; the fila- ents longer than the corolla; the berry inferior nd bilocular. Species two only; natives of the ape.

HALLEY (Dr. Edmund), an eminent astro- omer, was the only son of a soap-boiler in ondon, and was born in 1656. He first studied e languages and sciences, but at length de- oted himself entirely to astronomy. In 1676 e went to the island of St. Helena to complete e catalogue of fixed stars, by the addition of ose which lie near the south pole; and having elineated a planisphere, on which he laid them l down in their exact places, he returned to ngland in 1678. In 1680 he took a tour rough Europe, accompanied by the celebrated r. Nelson. Between Calais and Paris he ob- ined a view of the famous comet in its return om the sun. He had in November before seen in its descent; and now hastened to complete s observations upon it from the royal observa- ry of France His design in this part of his ur was to settle a correspondence between the yal astronomers of Greenwich and Paris; and improve himself under the great Cassini. He nt thence to Italy, where he spent great part 1681; but he soon after returned to England. 1683 he published his Theory of the Varia- n of the Magnetical Compass; in which he pposes the globe to be a great magnet, with four gnetical poles, or points of attraction; but after- rds, thinking that this theory was liable to at exceptions, he procured an application to made to king William, who appointed him mander of the Paramour Pink, with orders seek by observations the discovery of the e of variations, and to lay down the longitudes latitudes of his majesty's settlements in erica. He set out on this attempt on the h of November 1698; but having crossed line his men grew sickly; and, his lieutenant dinying, he returned home in June 1699. Having had the lieutenant tried and cashiered, he sailed a second time in September following, with the same ship and another of less bulk, of which he had also the command. He now traversed the vast Atlantic from one hemisphere to the other as far as the ice would permit him: and having made observations at St. Helena, Brasil, Cape Verd, Barbadoes, the Madeiras, the Canaries, the coast of Barbary, and many other latitudes, arrived in September 1700; and published a general chart, in 1701, showing at one view the variation of the compass in all those places. Captain Halley had been at home little more than half a year, when he was sent by the king, to observe the course of the tides, with the longitude and latitude of the principal head-lands in the British channel; which having executed, with his usual accuracy, he published a large map of the channel. Soon after the em- peror of Germany resolving to make a conve- nient harbour for shipping in the Adriatic, cap- tain Halley was sent by queen Anne to view the two ports on the coast of Dalmatia. He em- barked on the 22nd of November 1702; passed over to Holland; and, going through Germany to Vienne, he proceeded to Istria; but the Dutch opposing the design it was laid aside. The emperor made him a present of a rich dia- mond ring from his finger, and honored him with a letter of recommendation, written with his own hand, to queen Anne. Soon after his return, he was sent again on the same business; when passing through Hanover, he supped with the electoral prince, afterwards king George I., and his sister the queen of Prussia. On his arrival at Vienne, he was the same evening presented to the emperor, who sent his chief engineer to attend him to Istria, where they repaired and added new fortifications to those of Trieste. Mr. Halley returned to England in 1703; was made professor of geometry in the university of Oxford, and received the degree of LL.D. He was scarcely settled at Oxford, when he began to translate into Latin, from the Arabic, Apol- lonius De Sectione Rationis; and to restore Apollo- nius's books De Sectione Spatii, from the account given of them by Pappius; and he published the whole work in 1706. Afterwards he had a share in preparing for the press Apollonius's Conics, and ventured to supply the whole eighth book, the original of which is lost. He likewise added Serenus on the section of the cylinder and cone, printed from the original Greek, with a Latin translation, and published the whole in folio. In 1713 he was made secretary of the Royal So- ciety; in 1720 king's astronomer at the royal observatory at Greenwich; and, in 1729, a member of the Academy of Sciences at Paris. He died at Greenwich in 1742. His principal works are, 1. Catalogus Stellarum Australium. 2. Tabulæ Astronomicæ. 3. An Abridgment of the Astronomy of Comets, &c.

HALLIARDS, corrupted from haul and yard, the ropes or tackles usually employed to hoist or lower any sail upon its respective mast or stay. See JEARS.

HALLIFAX (Samuel), a learned English bishop, born at Chesterfield, in 1730, and edu- cated at Cambridge, where he was regius profes-

sor of civil law. In 1781 he was made bishop of Gloucester, and 1789 bishop of St. Asaph. He published an Analysis of Civil Law, and Sermons on the Prophecies. He died in 1790, aged sixty.

HALLOO, *interj.*, *v. a.*, & *v. n.* The original of this word is controverted; some imagine it corrupted from *à lui*, to him! others from *allons*, let us go! and Skinner from *haler*, to draw.—Johnson. A word of encouragement when dogs are let loose on their game. Fr. *haler des chiens.* To cry aloud, either in contempt or by way of cheering and encouragement; to cry after dogs, or hounds; to chase with shouts.

If I fly, Marcius,
Halloo me like a hare. *Shakspeare.*

When we have found the king, he that first lights on him,
Halloo the other. *Id. King Lear.*

A cry more tuneable
Was never *hallooed* to, nor cheered with horn.
Shakspeare.

Country folks *hallooed* and hooted after me, as the arrantest coward that ever shewed his shoulders to his enemy. *Sidney.*

Some popular chief,
More noisy than the rest, but cries *halloo*,
And, in a trice, the bellowing herd come out.
Dryden.

If, whilst a boy, Jack ran from school,
Fond of his hunting-horn and pole,
Though gout and age his speed detain,
Old John *halloos* his hounds again. *Prior.*

To HA'LLOW, *v. a.* Sax. þalʒian, þalıʒ, holy. To consecrate; to make holy; to reverence as holy, thus we say 'hallowed be thy name.'

When we sanctify or *hallow* churches, it is only to testify that we make them places of publick resort; that we invest God himself with them, and that we sever them from common uses. *Hooker.*

It cannot be endured to hear a man profess that he putteth fire to his neighbour's house, but yet so *halloweth* the same with prayer, that he hopeth it shall not burn. *Id.*

Is't Cade that I've slain, that monstrous traitor
Sword, I will *hallow* thee for this thy deed,
And hang thee o'er my tomb, when I am dead.
Shakspeare.

My prayers
Are not words duly *hallowed*, nor my wishes
More worth than vanities; yet prayers and wishes
Are all I can return. *Id. Henry VIII.*

God, from work
Now resting, blessed and *hallowed* the seventh day,
As resting on that day from all his works,
But not in silence holy kept. *Milton.*

Then banished faith shall once again return,
And vestal fires in *hallowed* temples burn.
Dryden.

No satyr lurks within this *hallowed* ground;
But nymphs and heroines, kings and gods abound.
Granville.

But, swain forsworn! whoe'er thou art,
This *hallowed* spot forbear;
Remember Colin's dreadful fate,
And fear to meet him there.
Tickel. Colin and Lucy.

The Sabbath comes, a day of blessed rest;
What *hallows* it upon this Christian shore?
Lo! it is sacred to a solemn feast.
Byron. Childe Harold.

HALLUCINA'TION, *n. s.* Lat. *hallucinatio.* Error; blunder; mistake; folly.

A wasting of flesh, without cause, is frequently termed a bewitched disease; but questionless a mere *hallucination* of the vulgar. *Harvey.*

This must have been the *hallucination* of the transcriber, who probably mistook the dash of the I for a T. *Addison.*

HALM, *n. s.* Sax. þealm. Straw: pronounced HAWM; which see.

HALMOTE, or HALIMOTE, is the same with Court Baron, the word implying a meeting of the tenants of the same hall or manor. The name is still retained at Luston, and other places in Herefordshire. See COURT.

END OF VOL. X.

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